

## Editorial

# Update on vascular access for hemodialysis: The new Spanish Clinical Guideline<sup>☆</sup>

## Actualización sobre el acceso vascular para hemodiálisis: la nueva guía clínica española

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The vascular access (VA) used to perform chronic haemodialysis (HD) is a key factor for patients with chronic kidney disease (CKD) and in predetermines itself the success or failure of a specific HD programme.<sup>1</sup> Of the 3 existing types of VA, native arteriovenous fistula (nAVF), prosthetic arteriovenous fistula (pAVF) and central venous catheter (CVC), the nAVF is considered the best for the majority of patients.<sup>2,3</sup> However, the percentage of incident and prevalent patients who undergo dialysis through a nAVF in Spain is far from optimal.<sup>4,5</sup> For example, the percentage of incident patients with CKD who have started HD with nAVF in recent years in Catalonia barely exceeds 50%.<sup>5</sup> In other words, a factor as important as the VA is not resolved and continues to be an pending issue in Spain.<sup>1</sup>

The current clinical profile of the CKD patient in Spain is different from that of 20 years ago due to their greater age and comorbidity. However, this data only partly justifies the excessive proportion of CVC compared to nAVF in many Spanish HD units. There is no doubt that modifiable organisational

factors that depend on various levels of the healthcare network have considerable specific weight.<sup>1,5</sup> An example of this is the proof that the nAVF rate can be increased through the introduction of the VA coordinator and the prioritisation of the surgical waiting list.<sup>6</sup> In this regard, the changes implemented in the USA by the "Fistula First" initiative have been translated into an increase in the percentage of prevalent patients receiving dialysis via a nAVF from 32% in 2003 to 63% in 2014.<sup>7</sup>

It's been more than 10 years since the publication of the Spanish Society of Nephrology (S.E.N.) Guideline on Vascular Access.<sup>8</sup> Until now, this Guide has been a benchmark for a whole generation of professionals linked to the field of HD. It became a commonly consulted document in all dialysis units and has been referenced in multiple scientific articles and forums. However, after this period of time it was necessary to update the guidelines in accordance with current evidence on several controversial aspects. For example, it was necessary to determine which VA was best for the HD initiation in older

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patients, re-evaluate the different therapeutic approaches for the VA pathology, update the methods for VA monitoring and surveillance, redefine the concept of significant stenosis and reconsider the role of Doppler ultrasound.<sup>9,10</sup>

The format of this Spanish Clinical Guideline on Vascular Access for Haemodialysis<sup>11</sup> is similar to the Vascular Access Guideline of the S.E.N. as it has maintained the 6-chapter structure. The "Quality indicators" section, which was included as an annex in the Vascular Access Guideline of the S.E.N. and contained only 5 indicators, has become Section 7 of this new Guideline, now with 29 indicators. Regarding the methodology and content of the Guideline, the mixed perspective has been maintained in each section. On the one hand, a series of recommendations on the most novel and/or controversial aspects of the VA have been prepared through the collaboration of experts from the different scientific Societies involved, according to the GRADE system and, on the other hand, the educational aspect that was already present in the previous Guideline of the S.E.N. has not been foregone.

The key factors for developing this guideline have been the following:

1. *The human factor.* The members of the working group include up to 25 specialists on VA. Although this group was originally formed exclusively by members involved in nephrology, it was subsequently developed into a multidisciplinary format with professionals from several specialties that are responsible for the management of different aspects of VA. Specialists in nephrology, vascular surgery, interventional radiology, infectious diseases and nephrology nursing from the respective Spanish scientific societies took part. Thus, this Guideline is the result of the teamwork of various professionals committed to the field of VA. This commitment has led to the involvement of the corresponding scientific societies, resulting in the creation of the Spanish Multidisciplinary Group on Vascular Access (GEMAV).<sup>12</sup>
2. *Scientific societies.* There has been unconditional support from the 5 scientific societies involved in the elaboration of this Guideline; the Spanish Society of Nephrology (S.E.N.), the Spanish Society of Angiology and Vascular Surgery (SEACV), the Spanish Society of Medical Radiology (SERAM) and its Vascular and Interventional Radiology Section (SERAM-SERVEI), the Spanish Society of Clinical Microbiology and Infectious Diseases (SEIMC) with the Hospital Infection Study Group, now called the Healthcare-related Infection Study Group (SEIMC-GEIH/GEIRAS) and, finally, the Spanish Society of Nephrology Nursing (SEDEN).
3. *Methodological support.* The methodological support of the Iberoamerican Cochrane Centre<sup>13,14</sup> has been vital in preparing structured clinical questions, the systematic literature review, the synthesis of evidence and the formulation of recommendations according to the GRADE system guidelines.<sup>15,16</sup>

In summary, our aim is to make this Spanish Clinical Guideline of Vascular Access for Hemodialysis in an useful tool in

decision-making during daily clinical practice for all professionals involved in the management of VA, that is, in one of the aspects key to developing a quality HD program.

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