

Fellows Corner

Raising Awareness during Nephrology Rounds

By Lourdes Gonzalez Suarez, MD, PhD

The US nephrology community has been concerned about lower numbers of trainees in Nephrology in recent years. A trend of fewer applicants to nephrology has been noted since 2011. Between 2013 and 2014, there were a slightly higher number of Nephrology Programs and fellowship positions opening. This led to a higher number of available positions than the number of applicants available to fill those positions in 2014 and 2015. This problem, if it remains unsolved, could translate into a possible future decline of the nephrology workforce and of nephrologists' ability to meet the needs of patient care in the US.

Fortunately, several measures are improving this situation. The fellowship Match timeline changed in 2013: Instead of choosing a specialty at some early point during PGY-2 and matching in the spring of that same academic year, we now have more time to choose a specialty up to the beginning of the PGY-3, and the Match has been delayed until December of that academic year. This change has allowed more time to evaluate options, which may be beneficial, especially for those residency programs where nephrology rotation may have been included at a later time in the PGY-2. Following institution of the ASN initiative for all nephrology fellowship programs to participate in the Match, and to fill all their positions through the Match, an increase in filled positions was seen for the 2016 academic year. There was a slight increase in the number of applicants during this year alone. If this trend continues, potentially in upcoming years this "crisis" of unfilled positions may become history.

As nephrology fellows, we may be able to contribute to solutions to the challenge of ensuring a robust nephrology workforce. We play an important role in introducing nephrology to medical students and residents. We usually spend more time with our team members in training than do our attending staff. Therefore, we

have an additional opportunity to make an impact and inspire our peers to consider nephrology.

We need to remind ourselves of the particular aspects of nephrology that caught our attention and inspired us to pursue a career in the field. Our interest might have been piqued in different stages of our medical training. To some of us it occurred when we were medical students; to others it may have been while working as hospitalists for some years before deciding to train in Nephrology. This exercise may help us find key elements of our own experience in choosing nephrology that we may share with others.

Several small changes can make a difference in how the nephrology rotation is experienced. Here I summarize some of the most common scenarios that we can take advantage of to engage our peers in our specialty:

- **Take a walk.** During walking rounds, we may be able to take advantage of those moments in between patients to share our knowledge in a collegial and learning environment. Topics shared may vary according to the clinical cases being seen. Any spare moment may be full of fun facts about nephrology history, ranging from how the first dialysis came to be, to how the first transplants were performed. These facts and conversations may help increase interest in the field.
- **Ask questions.** It is important to keep questions short and to the point and to base them on clinical scenarios of patients seen by the team, especially those concepts that are tested. Asking questions may help our peers recognize possible gaps in knowledge, tailor their study sessions, and perhaps focus their interest. This will help in board exam preparation as well.
- **Engage in hands-on activities.** In many instances, it is better to practice skills than just learn the theory. Engage your team in the physical exam. At the bedside, teach them how to examine fistulas and how to differentiate them from grafts. This tool is specific to

nephrology and may be interesting for our peers in training to familiarize themselves with. If a point-of-care ultrasound is available, take a look at the kidneys. Placing central venous access for hemodialysis may be another important skill to learn during nephrology rotation.

- **Don't miss an opportunity to use formulas.** Formulas are one of the most challenging parts of our specialty, and are certainly considered when deciding whether or not to apply to nephrology. Given the opportunity to practice them, our peers in training may feel more comfortable using these calculations and learning their merits. Some of the barriers to understanding may be overcome if time is spent working on these formulas and sharing tips on how to simplify and solve acid-base disorders, for example.
- **Visit the lab.** It should be interesting to all the members of the team to take a look at urine samples under the microscope to make a diagnosis. Urinalysis is a fundamental and inexpensive diagnostic tool, providing a great amount of information that can lead to diagnosis of certain pathologies. Visiting the lab is a good opportunity to emphasize the importance of our field.



Remember, if we are able to transmit our joy and passion for nephrology, we may inspire our peers to enter the field. The future of nephrology is now in our hands; let's make the best of it. ●

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Industry Spotlight

New Drug for Secondary Hyperparathyroidism Approved in Europe

Amgen's drug etelcalcetide (Parsabiv™) has been approved for marketing in Europe, through a decision by the European Commission announced in November 2016. Applications are also pending in the United States and Japan for etelcalcetide, which treats secondary hyperparathyroidism (SHPT) in adult patients with chronic kidney disease (CKD) who are on hemodialysis. In Europe, the prevalence of SHPT within dialysis populations ranges from 30% to 49%, Medscape reports. The EC approval covers 28 countries in the EU; Norway, Iceland, Liechtenstein, and members of the European Economic Area (EEA), can take corresponding decisions based on the EC decision.

The drug is the first calcimimetic agent to be given intravenously by a healthcare provider at the end of a hemodialysis session, three times weekly.

John Cunningham, MD, professor of nephrology at University College London Medical School, noted in Amgen's announcement that treatment failures among patients with SHPT are common. "Parsabiv provides a

new tool that should give physicians more confidence that patients are getting the medication they need to treat their SHPT," Cunningham said.

In SHPT, excessive parathyroid hormone is secreted by the parathyroid gland and promotes phosphorus and calcium movement from bone, which can cause joint pain. The new medication binds to and activates the calcium-sensing receptor on the parathyroid gland and decreases parathyroid hormone levels.

The marketing application for etelcalcetide included data from three phase 3 studies, all of which met their primary endpoints, including two pooled placebo-controlled trials in more than 1000 patients and a head-to-head study comparing Parsabiv with cinacalcet (Sensipar, manufactured by Amgen).

Amgen submitted a new drug application for etelcalcetide to the US Food and Drug Administration in August 2015, but the FDA has yet to look favorably on the drug application. In August, the FDA issued a Complete Response Letter for the New Drug Applica-

tion (NDA) for Parsabiv™.

According to the FDA website, a complete response letter provides a more consistent and neutral mechanism "to convey that our initial review of an application is complete and we cannot approve the application in its present form." The agency said the letter provides a more consistent approach to informing applicants of changes that must be made before an application can be approved, with no implications about whether the drug will ultimately be approved. Amgen says it is reviewing the Complete Response Letter and anticipates a meeting with the FDA late in 2016.

In January 2016, Japanese drugmaker Ono Pharmaceuticals filed a manufacturing and marketing approval application in Japan for etelcalcetide, for the same indication, PharmaLetter.com reported. Ono has been working to commercialize the medication since 2011, when it entered into an exclusive licensing agreement with former KAI Pharmaceuticals (now a subsidiary of Amgen) to develop etelcalcetide. ●