

Cite as: Paterson NR. Making strides in POCUS training in urology. *Can Urol Assoc J* 2024;18(4):115. <http://dx.doi.org/10.5489/cuaj.8758>

See related article on page 110

Making strides in POCUS training in urology

I was keen to read this month's *CUAJ* paper on developing a point-of-care ultrasound (POCUS) curriculum for assessment of renal transplant grafts.¹ Urology has always been a speciality that prides itself in the adoption of novel diagnostic and therapeutic technologies. Put a probe in our hands and we will find a way to use it. Portable ultrasonography has long since begun to percolate into many subspecialty areas of urology, from prostate volume assessment to ultrasound-guided percutaneous nephrolithotomy, penile duplex, etc.

A recent Canadian study highlighted that the use of POCUS in one academic setting was most common for assessing renal pathology and yet, the major barrier to its adoption remained the lack of time, knowledge, and formal training needed² — a nice lead-in to the work Dr. Uy et al have tried to capitalize on.

Having trained in a center with prompt postoperative ultrasound for all living and deceased donor renal transplants and now practicing without, I can say that POCUS is certainly an intriguing tool to have in the bag. Dr. Uy and his co-authors should be commended for their comprehensive approach to developing curriculum that allows healthcare practitioners to arm themselves with the skills needed to interrogate grafts at the bedside. Integrating trained ultrasonographers, a split theory and practice component, transplant-specific content, and real patients with grafts into the course clearly set the learners up for success.

An informal text message survey of several of my peer urology transplant surgeons from centers across Canada would suggest there remains significant variability in the use and timing of formal postoperative ultrasound (and/or renal scans). While the predictability and use of elective operating time for living donor transplants affords some ability to plan for postoperative ultrasounds, there remains significant disparity in after-hour and deceased donor graft access to ultrasound technicians and formal radiology reporting. To even the playing field, we would welcome the ability to use POCUS more confidently

after complex cases with multivessel or challenging anastomoses, pediatric donor kidneys, or pediatric recipients at higher risk of vascular compromise. We know that in many cases, timely recognition of vascular complications, such as renal vein or artery thrombus, is the only shot we have of salvaging the kidney.

One of the challenges with POCUS in this setting, highlighted nicely in this paper, remains the optimization and interpretation of Doppler studies. While identifying a big collection or new graft hydronephrosis is unquestionably important, waving the POCUS wand and getting a quick read on graft perfusion remains the most powerful upside of this tool in the acute setting. Dr. Uy et al found that post-course skill improved considerably across all segments, but least so in the Doppler category. This was unsurprising. What to do with abnormal peak systolic velocities and resistive indices is something we have all lost sleep over, even in the absence of having to measure these parameters on our own. A renewed focus on Doppler theory, practice modules, and a hope that in the future, device-automated analysis can be relied upon is on my wish list.

The use of POCUS is certainly here to stay, and this paper nicely highlights the success of creating a tailored curriculum to improve user self-efficacy and skill with this technology. It would be nice to see this type of training offered on both the surgical and medical side of renal transplant in fellowship and at the Canadian Society of Transplant annual scientific meeting.

COMPETING INTERESTS: The author does not report any competing personal or financial interests related to this work.

REFERENCES

1. Uy M, Lam C, Guo Y, et al. Point-of-care-ultrasound for the assessment of post-renal transplant recipients. *Can Urol Assoc J* 2024;18:110-4. <http://dx.doi.org/10.5489/cuaj.8531>
2. van der Leek AP, Metcalfe, P. Point-of-care ultrasound: Usage and accuracy within Canadian urology division. *Can Urol Assoc J* 2024;18:48-54. <https://doi.org/10.5489/cuaj.8513>

CORRESPONDENCE: Dr. Nicholas R. Paterson, Department of Urology, Dalhousie University, Halifax, NS, Canada; nickrpateron@gmail.com