

Response to “Hand transplantation: current challenges and future prospects”

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Dear editor

We read with interest the recent review article by Alolabi et al entitled: “Hand transplantation: current challenges and future prospects”.¹ However, one significant omission to the “ideal multidisciplinary transplant team” is the absence of a transplant pharmacist.¹

In 2004, the United Network for Organ Sharing bylaws stated that all organ transplant programs in the United States should identify one or more pharmacists with experience in transplant pharmacotherapy to be responsible for providing pharmaceutical care to solid organ transplant recipients.² Additionally, in 2007 the Centers for Medicare and Medicaid Services (CMS) accreditation standards for transplant centers mandated that a transplant center must identify a multidisciplinary transplant team composed of individuals from medicine, nursing, nutrition, social services, transplant coordination and pharmacology.³ The expectation of CMS is that a transplant pharmacist be involved in every phase of transplant patient's care (evaluation phase, transplant phase and posttransplant phase). As a result, transplant pharmacists actively participate in both the adult hand transplant program at our institution (Penn Hand Transplant Program at the Hospital of the University of Pennsylvania) and the Children's Hospital of Philadelphia Hand Transplantation program.

We recognize that these same requirements do not yet extend to vascular composite allotransplant (VCA) programs in the United States, and that the authors of this article are practicing in Canada. However, we would stress that, similar to organ transplant,^{4,5} transplant pharmacists play an essential role in the management of these incredibly complicated patients and therefore should be recognized as an integral member of the multidisciplinary VCA team.

A few examples of key contributions that a transplant pharmacist can routinely provide in each phase of care are as follows: 1) evaluation phase: identification, stratification and mitigation of pharmacologic and non-pharmacologic risk factors (including medication nonadherence), participation in patient and caregiver medication education; 2) transplant phase: drug selection, dosing and monitoring, therapy recommendations (including management of drug interactions), medication reconciliation, collaboration with transplant social worker and finance to assist with medication costs and coverage, participation in discharge patient and caregiver medication education; and

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3) posttransplant phase: all activities from transplant phase plus continuous monitoring for medication adherence and ongoing patient and caregiver medication education.

Transplant pharmacists are also extensively involved in programmatic activities such as development of medication protocols and monitoring guidelines, medication utilization reviews, pharmacy and therapeutics committees, and quality assurance and process improvement initiatives. Transplant pharmacists contribute to clinical research activities, regularly provide input and education to providers in multidisciplinary forums, and provide education to a variety of pharmacy and medical subspecialties. Furthermore, numerous transplant pharmacists enthusiastically participate in national and international transplant-related organizations, including the American Society of Transplantation VCA Advisory Committee.

In summary, transplant pharmacists are important stakeholders to assist VCA providers, caregivers and patients with complex pharmacologic management, education, clinical research, program development and advancement of practice in all phases of transplant care. Therefore, transplant pharmacists should be considered a valued member of the ideal multidisciplinary VCA team to promote optimal patient and graft outcomes.

Acknowledgments

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Disclosure

The authors report no conflicts of interest in this communication.

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Authors' reply

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Dear editor

We would like to thank Drs Jennifer Trofe-Clark and L Scott Levin for their letter in response to our published article "Hand transplantation: current challenges and future prospects".¹ We would also like to commend the Penn Hand Transplant Program's work and efforts in advancing the field of hand transplantation.

We do agree that a transplant pharmacist should certainly be part of the "ideal multidisciplinary transplant team". As accurately stated by your letter, the role of the pharmacist in

the treatment of these complex patients is absolutely vital. Table 2 in our published article¹ provides only a sample of what the multidisciplinary team requirements for a hand transplant center may include. However, this list may need to be adjusted depending on the center and the specific services present. Despite this, we do believe that identifying a standardized multidisciplinary team that should be present when developing a hand transplant center is essential for future success. As such, including "transplant pharmacist" to the table is necessary.

Disclosure

The authors report no conflicts of interest in this communication.

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