

The Nephrologist Has Great Potential to Have an Important Role in the Intensive Care Unit: Reply to the Letter to the Editor of David J.R. Morgan

David J. Askenazi^a Sarah Faubel^b

^aDepartment of Pediatrics, Division of Pediatric Nephrology, University of Alabama at Birmingham, Birmingham, AL, and ^bDepartment of Medicine, University of Colorado, and Denver VA Medical Center, Denver, CO, USA

After the publication of the article “the Role of the Nephrologist in the ICU” in *Blood Purification*, we received complementary remarks from members of the critical care nephrology community on the article. We acknowledge the added insight received from Dr. David J.R. Morgan on this article with regard to the query raised by him as to whether this article has been written as a “posturing for greater control” without “meaningful clinical content.” We appreciate the opportunity given to us to respond to his comments and better explain the make-up of our writing team and the motivation of our group in the writing of this article, which was designed to provide nephrologists with “meaningful programmatic content” to assist them in enhancing their role in the acute care nephrology department of their institution. Our response to Dr. Morgan’s concerns will indeed find further discussion on “quality, collaboration, and governance” in addition to words like “metrics, protocols, process, safety, and improvement,” as we believe that these are important attributes of patient care and collaboration among intensivists and nephrologists, as well as other subspecialists. We agree wholeheartedly with Dr. Morgan that the constant bedside attention provided by intensivists is essential to provide outstanding care to critically ill patients. We also believe that the expertise of nephrologists

– in particular – in acid base, volume assessment, and renal replacement therapy (among other skills) can be invaluable to the care and outcomes of critically ill patients.

The writing team for our original article was made up of 4 critical care intensivists and 8 nephrologists. The first drafts were written by 3 different workgroups (clinical care, quality improvement, and education). Each group was composed of at least one nephrologist and one critical care physician. This manuscript was not intended to provide “meaningful clinical content.” Instead, we focused on “meaningful programmatic content” designed to help the nephrologist improve their understanding of the time and tasks needed for program development. The qualities that define any great hospital program include:

1. Clearly established policies and procedures
2. Check-off protocols similarly followed by all members of the team
3. Ongoing educational efforts
4. Operational infrastructure that is ready to address operational, communication, and safety concerns
5. Periodic assessment of the resources, process, and outcome measures
6. Ongoing input from nursing, pharmacy, administration, and physicians
7. Culture rooted in safety and promotion of ongoing quality improvement

Unfortunately, acute care nephrology programs with all of these qualities are not in place at many of the programs that the authors are part of. Indeed, there is a wide gap in the program management, training, and resources between centers in the same country, and even wider gaps in program around the globe. We would strongly be in favor of any great acute care nephrology program, regardless of which primary discipline (intensive care physician or nephrologist) takes the lead. Excellent programs take vision, planning, communication, and dedicated time. Our hope is that this special article will help inspire nephrologists to see the importance of a creating a critical-care focused nephrology program, provide tools program development, and then take necessary steps to fill unmet needs at their institutions.

We respectfully disagree with the notion that the 60-day mortality differences (52.3 vs. 44.7%) in the ATN versus RENAL trials of RRT dosing in critically ill patients reflect nephrologist-driven versus intensivist-driven RRT support. Indeed, neither study was designed to compare outcomes against the other subjects. While the reasons for the apparent improvement in mortality have been speculated upon, we maintain that it is not valid to conclude that practices between groups affected these results, particularly since the comparison

groups are heterogeneous and multiple modalities of RRT were utilized.

AKI is extremely common in neonatal [1], pediatric [2], and adult [3] ICU patients, and patients with AKI have much higher adjusted chance to die than similar patients without AKI, even after controlling for numerous potential confounders. Nephrologists have a deep understanding of the pathophysiology behind the mechanisms that lead to AKI, propagate kidney injury, and systemically alter other organs in the context of critical illness and can offer unique perspectives and contributions to the care of these patients. In addition, there are multiple ongoing studies designed to improve the short- and long-term outcomes ascribed to AKI. We suggest that it is a matter of semantics regarding whether critical care nephrology is a “field” or a “niche.” Regardless of the term used, there are a multitude of bright, dedicated individuals in both the nephrology and the intensive care fields, who have dedicated their entire careers to improving outcomes in critically ill patients with AKI.

In conclusion, we hope this manuscript stimulates the thoughts of nephrologists and

intensivists about how their critical care program functions, how it can be strengthened, and how individuals can avail of the potential opportunities to improve a program. We do not believe that that one program will suit the needs of every institution; however, we do strongly believe that both the intensivist and nephrologist have important roles and that strong collaboration will benefit acute care nephrology programs, and consequently, the critically ill patients with AKI.

Disclosure Statement

The authors have no conflicting interests that could affect the data and views presented in this manuscript. All authors had full final responsibility in making the decision to publish this article.

Voluntary Disclosure of Other Nonconflicting Activities

Dr. David J. Askenazi is a speaker for the AKI foundation and Baxter. He currently receives research funding from the National

Institutes of Health (R01-DK103608, R18-hs023763, R01-FD005092), Octapharma Pharmazeutika Produktionsges.m.b.H., and from several sources within the University of Alabama at Birmingham (i.e., Center for Clinical and Translational Science, Impact Funds for the Pediatric and Infant Center for Acute Nephrology from the Department of Pediatrics in conjunction with UAB School of Medicine and Children of Alabama).

References

- 1 Jetton JG, Askenazi DJ: Acute kidney injury in the neonate. *Clin Perinatol* 2014;41:487–502.
- 2 Kaddourah A, Basu RK, Bagshaw SM, Goldstein SL; AWARE Investigators: Epidemiology of acute kidney injury in critically ill children and young adults. *N Engl J Med* 2017; 376:11–20.
- 3 Hoste EA, Bagshaw SM, Bellomo R, Cely CM, Colman R, Cruz DN, et al: Epidemiology of acute kidney injury in critically ill patients: the multinational AKI-EPI study. *Intensive Care Med* 2015;41:1411–1423.