

Editorial

The Nephrology–Primary Care Interface: Providing Coordinated Care for Chronic Kidney Disease

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The concept of a patient-centered medical home (PCMH) is being advanced by a number of specialty societies and by health care policy experts, as well as by both federal and nonfederal payers. The PCMH is a physician-directed practice that places the patient at the center of its focus to provide care that is accessible, continuous, comprehensive, and coordinated (1–3). The PCMH model of comprehensive health care delivery is now being tested in a number of pilot projects in various regions of the US. There are currently 22 projects in 16 states designed not only to test the applicability of the concept but also to provide much needed information on incremental cost estimates and savings that integrate the chronic care model and the PCMH concept. By the end of 2010, one of the deliverables from these pilots will be the establishment of a pay-for-performance approach using a consistent set of core measures. The reader is referred for more information on PCMH demonstration projects to the American College of Physicians (ACP) web site: http://www.acponline.org/running_practice/pcmh/demonstrations/index.html.

The patient-centered primary care collaborative formed in 2007 and has more than 610 member organizations including the American College of Physicians, American College of Cardiology, American Academy of Neurology, and a number of employer umbrella organizations representing more than 50 million employees, including individual companies such as IBM and General Motors. Most major health plans are represented as well as consumer organizations

such as AARP. So, in short, the notion of a PCMH is rapidly gaining traction as an idea to transform health care delivery in the United States (3,4).

The frequent use of subspecialists in the face of low use of primary care has been cited as one of the problems with our current health care delivery system in the United States. Because of the growing population of patients with stages 3 and 4 chronic kidney disease (CKD), in the face of an inadequate nephrology workforce to provide comprehensive care for such a large population, it is important for nephrologists to be involved in a collaborative and coordinated approach with primary care physicians (PCPs) to treat patients with CKD. To encourage a coordinated system of care, nephrologists have an opportunity through organizations such as the American Society of Nephrology and the Renal Physicians Association to *model* CKD from a coordinated care perspective. By defining how PCPs and nephrologists will coordinate the care for patients with CKD, it is hoped that the primary care–nephrology care interface will be improved and that specific means of reimbursement for the delivery of quality care will follow. The means by which PCPs, subspecialists, and patients might interact within the framework of the PCMH has been designated as the “medical neighborhood” (PCMH-N) (5). The key features of the “neighborhood” and the possible types of financial incentives or performance rewards for medical neighbors to participate in care coordination is just beginning to evolve. One of the pilots to test, presumably, the PCMH-N concept, was proposed recently by the Texas ACP Chapter, and

designated the “Texas Patient-Centered Medical Home Initiative.”

The American Society of Nephrology public policy board appointed a task force to formulate a position on the PCMH in 2008, and the initial report of the task force was published in *JASN* (6). In focusing on how the nephrologist might interact with a PCMH, the task force initially created four case scenarios to illustrate and elucidate how concerns that might arise with implementation would be considered (http://www.asn-online.org/policy_and_public_affairs/patient-care.aspx). The case scenarios included a patient with stage 3 CKD; a patient who has stage 4 CKD and is referred to a nephrologist for consultation and participation in treatment; and, finally, a patient who has a less common but a more complex autoimmune disorder that requires comprehensive management by a nephrologist and other subspecialists but requires less involvement by a PCP. This exercise demonstrated not only dilemmas that might arise in several areas but also illustrated clearly that a better definition of cooperative interaction between the nephrologist and the PCP would require a more comprehensive model. To accomplish this goal, the task force has focused on delineating the coordination of care around CKD that is caused by diabetes and hypertension.

With this background in mind, there are several questions that require careful consideration by nephrologists: First, what constitutes a good “neighbor,” and, second, how might a nephrologist participate? Several recent reviews have attempted to lay the groundwork for this relationship (5,7).

For these reasons, the task force is focusing presently on a more comprehensive model, specifically for the coordinated care of CKD, because this is by far the largest anticipated category of interaction between the PCMH and PCMH-N. Such an approach should fit within the framework of the modeling of chronic disease as initially proposed by Wagner and colleagues (8). If the nephrologist is to co-manage care for CKD with a PCP, then a spectrum of involvement by the specialist neighbor (PCMH-N) that extends from initial consultation at an earlier stage of CKD (*e.g.*, stage 3A) to the role of co-manager with shared care at stages 3B and 4 is envisioned. Ultimately, at later stages of CKD, the nephrologist could become responsible for providing principal care (*e.g.*, at stage 5 or late stage 4 CKD). Such a conceptual model is outlined in Figure 1 (this model also emphasizes that

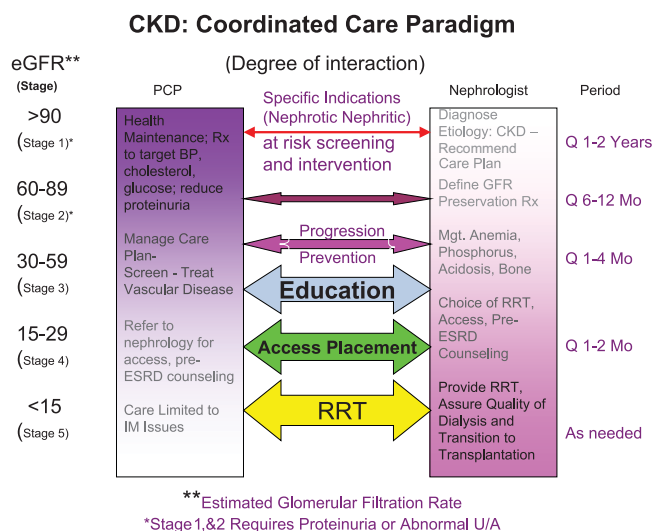


Figure 1. Model of coordinated care by CKD stage. RRT, renal replacement therapy; CKD, chronic kidney disease; Mgt, management; PCP, primary care physician; IM, internal medicine.

nondiabetic secondary and primary glomerulopathies would warrant immediate referral to a nephrologist). If the nephrologist becomes a co-manager with shared care, then he or she must share long-term management of CKD with a PCP. On the assumption that many patients who have CKD, for whom long-term treatment will be shared between the PCP and the nephrologist, have diabetes, it is apparent that guidelines that pertain to the involvement of the endocrinologist or any other subspecialist who is involved in the care of the patient will also be necessary.

For this relationship to improve care, accurate definitions of when the PCP should refer the kidney patient must be established. Because late referral is currently a major problem that results in poor outcomes for patients with CKD (6), the nephrologist PCMH-N should not be penalized for late referral by the PCP. Moreover, the accountability of the nephrologist must be clarified with the PCP for management tasks. Finally, timely communication of recommendations and changes in management should eventually flow through a mutually accessible electronic medical record for truly coordinated care to succeed. As CKD progresses, the nephrologist may assume a more active role as co-manager with principal care and assume total responsibility for the long-term management of the CKD/ESRD. In addition to providing evidence-based management, the PCMH-N (nephrologist) will then assume full accountability for the management of

the CKD as well as coordination of the involvement of other specialists (e.g., cardiology) as well as with the PCMH physician. If the nephrologist chooses to act in the capacity of a PCMH rather than to continue in the capacity as neighbor, it will be necessary for the nephrologist to assume responsibility for being the provider of “whole-person care” and as having overall responsibility for ensuring the coordination and integration of the care provided by all involved providers. Moreover, designation by the National Center for Quality Assurance as a PCMH would also be required. Designation as a PCMH, therefore, seems to be an option that many nephrologists may choose not to exercise.

Integrated health care delivery systems and multi-specialty group practices of the future will be compelled to develop systems for shared information, accountability, and rewards. Nephrologist PCMH-neighbors (PCMH-N) will need to develop referral guidelines that are evidence-based and provide better data regarding the impact of intervention and management on outcomes (e.g., progression of CKD to ESRD, and the development of complications such as cardiovascular disease). As a system of coordinated care is developed within the framework of the PCMH-N, it will be necessary to develop an approach that clearly delineates when a co-management approach should be used as opposed to either the PCP (PCMH), or the nephrologist (PCMH-N) playing a principle role. These guidelines, as well as quality metrics, are not yet available.

Up to this point, little attention has been given to communication regarding transitions of care, and certainly this includes the primary care–specialty care interface. Very few residency or fellowship programs focus on communication or transitions of care. A recent article by Forrest (9) attempted to describe the typology of specialists’ clinical roles on the basis of empirical evaluations of the specialty referral process and suggested ways of improving the effectiveness and efficiency of the primary care–subspecialist care interface. In an accompanying editorial (10), Chen and Yee indicated that “the Forrest typology has potential as a conceptual framework for establishing the respective and mutual duties and responsibilities of PCPs and specialists.” They also indicated that “implementation will require improvements in the delivery system and a clearer understanding of the application of co-management to clinical practice.”

The ACP Council on Subspecialty Societies is

developing a working agreement for the PCMH and the PCMH-N. At the operational level, the PCMH-N has been tentatively defined as a specialty practice that (1) is engaged in coordination and integration of care with a PCMH practice that is of high quality and efficiency; (2) complements the aims of the PCMH practice by facilitating appropriate and timely consultation; (3) facilitates the efficient, appropriate, and effective flow of necessary patient and care information; (4) effectively addresses issues of responsibility in co-management situations; (5) supports patient-centered care, enhanced care access, and high levels of care quality and safety; and (6) recognizes the PCMH practice as the provider of “whole-person primary care,” having overall responsibility for ensuring the coordination and integration of the care provided by all involved providers. From such definitions, service agreement principles between the PCMH and the PCMH-N are being developed. If such paradigms are to apply to CKD, then nephrology societies and individual nephrologists in general must be involved in the creation of chronic disease care models for CKD within the framework of the PCMH. This is why the American Society of Nephrology and the Renal Physicians Association are participating with the ACP, payers, and other health care organizations in discussions regarding the PCMH and PCMH-N interface.

In the interim, the most immediate goal for nephrology is to develop a clear paradigm for the management of the most common forms of CKD with emphasis on the interface between the PCP and the nephrologist as a function of CKD stage. To be precise, a definition of who does what and when is needed. Better guidelines regarding the timing of referral will be an absolute necessity. Extending the scope of care to CKD will represent a challenge for the PCP as well. A recent study emphasized that the “typical” PCP, on average, interacts with 229 other physicians who work in 117 practices with which care must be coordinated (11). For the primary care–nephrology interface to succeed, nephrologists should define how information will be exchanged and, ultimately, how outcomes can be measured fairly and improved. Such an approach is desirable when the patient with CKD is placed at the center of the health care delivery system, concordant with the stated core principle of the PCMH concept.

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