## THE ADVANCED CHRONIC KIDNEY DISEASE MANAGEMENT TOOLKIT

Approximately 20 million Americans have some degree of kidney disease<sup>1</sup> demonstrated by decreased glomerular filtration rate (GFR) (<60 mL/min) and/or structural or functional abnormalities. The impact of this chronic kidney disease (CKD) is manifested in a markedly increased mortality risk and in progression to end-stage renal disease (Figure 1).<sup>2</sup>







example, Figure 2<sup>9</sup> illustrates the impact of treatment of anemia.







Early intervention makes a difference in patient outcomes.<sup>10</sup> (Figure 3)



The Advanced Chronic Kidney Disease Management Toolkit has been developed by the Renal Physicians Association (RPA) to help physicians intervene early, and care for the expanding population of patients with advanced CKD. This effort has been coordinated with that of the National Kidney Disease Education Program.<sup>10</sup>

The toolkit is designed to make it a simple and practical matter to follow evidence-based guidelines<sup>\*</sup> for management of patients with advanced CKD and to optimize care and achieve best possible outcomes. Thus, it is intended to act as a program that can add value to a practice by improving its performance through the use of a set of tools. The reader is encouraged to review the presentation "Optimizing the Care of Patients with Advanced CKD" included in the toolkit, page 22, (or on the accompanying CD-ROM, or online at <u>www.renalmd.org/toolkit/intro.cfm</u>) for a brief and helpful overview of the value and use of the various tools and how to utilize them for best results.

The intended audience for this toolkit is a clinician/practice group wishing to improve the care of advanced CKD in their practices and in their communities. Generally, the principal users of this toolkit will be nephrologists. As providers, nephrologists will find the consultation and management tools to be especially helpful. As key opinion leaders, nephrologists can utilize the toolkit to promote education among their colleagues, help set up effective arrangements for patient co-management, and provide specific tools to referring physicians. However, the toolkit should also prove useful to non-nephrologists who, out of interest or necessity, may be responsible for various aspects of the care of their advanced CKD patients.

\* See Executive Summary of RPA Clinical Guideline #3 in Physician Education Material section of toolkit (p. 21) or online at <u>www.renalmd.org</u>.



With this in mind, we have consulted with practicing physicians throughout the United States, including nephrologists, primary care physicians and other specialists including endocrinologists and cardiologists. The consensus of these advisors was that the tools should be straightforward, require the least possible staff time to implement, and be usable without special resources such as an electronic medical record. Thus, the core tools are paper-based and the instructions are relatively streamlined. In addition to these paper versions that can be duplicated, the tools are also available on the enclosed CD-ROM in Adobe Acrobat<sup>®</sup> and Microsoft Office<sup>®</sup> versions or online at <u>www.renalmd.org/toolkit/intro.cfm</u>. These versions are intended for users who wish to utilize these formats to reproduce these tools for use as is, or to modify the tools to suit their practice needs or preferences. Some of these tools can also be downloaded to a hand-held PDA device (see PDA Download for Tools and eDrugsRenal tools located in Supplemental Tools section of toolkit).

These tools<sup>†</sup> have undergone external review by physicians (both nephrologists and nonnephrologists) and patients. This current version has also been revised based on formal pilottesting of tools, approaches, and measures. Nevertheless, when tools are used "in the field," unanticipated difficulties may emerge. With that in mind, an evaluation sheet is included, soliciting feedback on the use of these tools. Suggestions are appreciated and will help the RPA improve future versions of the tools.

The specific tools and the instructions for use are based on established principles of process improvement. The instructions include practical tips regarding optimal use. The approach offered here does not require special skill or experience with the methods of quality improvement, only an interest in improving the outcomes of patients with advanced CKD. The toolkit is organized according to the steps listed in Table 1 on the following page.

† The foundation of this toolkit is the evidence-based recommendations in the RPA guideline (available at <u>www.renalmd.org</u>) developed from a comprehensive literature review (Evidence Report: Appropriate Patient Preparation for Renal Replacement Therapy, Renal Physicians Association, April 2002). These source documents were created by an expert panel convened by the RPA and supported by methodologists from the Duke Center for Clinical Health Policy Research. The toolkit working group has carefully crafted the contents and made every effort to ensure the accuracy of the information, references, and attributions.





## TABLE 1

STEPS IN USING THE ADVANCED CKD MANAGEMENT TOOLKIT			
Step 1: Select tools	Choose a set of practice improvement tools tailored to the needs of your practice situation.		
Step 2: Assess	Measure how your practice is performing.		
Step 3: Implement	Apply the tools to your practice.		
Step 4: Evaluate	Determine if performance is improved.		

Table 2 provides a summary of the tools, along with the intended user and the intent and format for each tool. A helpful guide to selecting tools is included in the next chapter.





## TABLE 2: LIST OF TOOLS

NAME OF TOOL	INTENDED USER	INTENT OF TOOL	FORMAT OF TOOL "LOOK AND FEEL"
ASSESSMENT TOOLS			
Patient Identification	Physician practices identifying advanced CKD patients	Assess existing practice performance regarding identification and nephrology consult/ referral of advanced CKD patients	Step-wise instructions for assessing practice performance
Patient Management	Physician practices managing advanced CKD patients	Assess existing practice performance regarding management of advanced CKD patients	Step-wise instructions for assessing practice performance
	IMPLEMENTA	TION TOOLS	
Physician Education Material (includes CKD PowerPoint <sup>®</sup> presentation and Executive Summary of Guideline Recommendations)	Nephrologists <sup>‡</sup>	Promote education on optimizing advanced CKD care by identifying patients early, using GFR, communicating effectively for co- managing patients, and introducing tools. Recommendation statements address management needs of patients with GFR <30 mL/min	<ol> <li>PowerPoint<sup>®</sup> presentation, along with note pages. Standard set (and some additional slides that a presenter could choose from) are included<sup>§, #</sup></li> <li>Executive Summary of RPA Guideline #3. Full guideline available at www.renalmd.org<sup>§</sup></li> </ol>

‡ Although we use the term "nephrologist," this group of providers includes all physicians who manage advanced CKD s These tools are suitable for downloading into a Palm/hand-held PC device (Refer to Palm Downloads at

www.renalmd.org). # This presentation may be made using a Palm/hand-held PC device with add-on software.





NAME OF TOOL	INTENDED USER	INTENT OF TOOL	FORMAT OF TOOL "LOOK AND FEEL"
Awareness Letter	Nephrologists to colleagues	Raise awareness of CKD, introduce concept of co- management, promote education	Brief, one-page letter, directed to the referring physician. Copy of the Executive Summary of RPA Guideline #3 could be attached to the letter <sup>§</sup>
CKD: Identification and Action Plan Card	Referring physicians/ Physician extenders/ Nephrologists	Promote identification of high-risk patients, appropriate timing of consult or referral to nephrologist, and use of the RPA guidelines	Laminated card with CKD Identification and Action Plan that includes classification of stages of CKD and action associated with each stage, keys to identification of patients at high risk for CKD, indications of kidney damage, risk factors for progression, potential complications, and concise RPA guidelines <sup>§</sup>
CKD: Identification and Action Plan Poster	Referring physicians/ Physician extenders/ Nephrologists	Promote identification of high-risk patients, appropriate timing of consult or referral to nephrologist, and use of the RPA guidelines	Poster for physician's office, with CKD Identification and Action Plan including a classification of stages of CKD and action associated with each stage, keys to identification of patients at high risk for CKD, indicators for kidney damage, risk factors for progression, and potential complications

§ These tools are suitable for downloading into a Palm/hand-held PC device (Refer to Palm Downloads at www.renalmd.org).





NAME OF TOOL		INTENT OF TOOL	FORMAT OF TOOL "LOOK AND FEEL"
GFR Calculator	Referring physicians/ Physician extenders/ Nephrologists	Identify CKD patients on the basis of GFR instead of serum creatinine	<ul> <li>Three formats:</li> <li>Slide rule</li> <li>Websites for PC use</li> <li>Downloads for Palm/hand-held PC device<sup>§</sup></li> </ul>
CKD Chart Flags/Stickers	Referring physicians/ Physician extenders/ Nephrologists	Flag medical records of patients with advanced CKD to facilitate insertion of flow sheets and use with assessment and evaluation tools	Stickers to place on outside of patient medical record
Referring Physician Faxback Form	Nephrologist to referring physician, faxed back to nephrologist	Ensure that nephrologists get important clinical data; allow referring physician to clarify the purpose of referral	One-page faxback form for communication between nephrologist and referring physician. Can be individualized by adding practice fax header or inserting clinic stamp <sup>§</sup>
CKD Post-Consult Letter	Nephrologist to referring physician	Communicate co- management plan to referring physician	<ul> <li>Three formats:</li> <li>One-page form clarifying respective roles of nephrologist and referring physician</li> <li>Bulleted list to remind nephrologist while drafting his/her own letter</li> <li>Website with "consult letter template"<sup>§</sup></li> </ul>

§ These tools are suitable for downloading into a Palm/hand-held PC device (Refer to Palm Downloads at <a href="http://www.renalmd.org">www.renalmd.org</a>).





NAME OF TOOL	INTENDED USER	INTENT OF TOOL	FORMAT OF TOOL "LOOK AND FEEL"
Advanced CKD Management Flow Sheet	Physician managing advanced CKD patients	Serve as a reminder and a standing order; shaded areas also serve as a data repository for use with evaluation tool for patient management	One-page flow sheet that goes in advanced CKD patient charts. Shaded areas correspond to data required for the Evaluation Tool: Patient Management
Advanced CKD Algorithms	Physician/Provider managing advanced CKD patients	Provide implementation guidelines at point of care	Algorithms <sup>§</sup> (one page each) for: • Anemia • Hypertension • Bone Disease • Nutrition • Lipids
Nephrology CPT Codes	Nephrologists and providers managing advanced CKD patients	Provide nephrology CPT reference codes and documentation guidelines	Laminated pocket card <sup>§</sup>
Supplemental Tools (includes eDrugsRenal and PDA Downloads for Tools)	Referring physicians/ Physician extenders/ Nephrologists	Help provide dosage adjustments for patients with CKD and useful websites for PDA programs	<ol> <li>Reference for downloading eDrugsRenal (a freeware program that recommends dosage adjustments)<sup>§</sup></li> <li>General information regarding downloading<sup>§</sup> PDA programs</li> </ol>

§ These tools are suitable for downloading into a Palm/hand-held PC device (Refer to Palm Downloads at <a href="http://www.renalmd.org">www.renalmd.org</a>).





CKD Patient Diary (Personal health record)	Includes patient education, self- management information. Serves as both a patient	Card with patient and provider name and a series of kidney diagrams shaded to
	reminder and a patient-initiated physician reminder. Involve patient in ongoing care	reflect the patient's degree of kidney function and CKD stage. Inside the card is a flow sheet similar to the one in the patient chart. Also has lay version of goals of care and recommendations from the RPA guideline and handy med list
CKD Patient Education Resources	iver Serve as a resource for patient education	Brief description of several patient- education resources with their contact information. Formatted as a patient handout <sup>§</sup>
Venipuncture Patient Reminder Card	Remind patient and healthcare providers to protect arm veins in non-dominant arm for future vascular access	Instruction card with removable wallet card
Vascular Access Patient Passport	Provide patient with information on catheter and vascular access placements	Multi-page, passport- sized booklet in a protective plastic sleeve

§ These tools are suitable for downloading into a Palm/hand-held PC device (Refer to Palm Downloads at <a href="http://www.renalmd.org">www.renalmd.org</a>).





NAME OF TOOL	INTENDED USER	INTENT OF TOOL	FORMAT OF TOOL "LOOK AND FEEL"	
	EVALUATION TOOLS			
Patient Identification	Practice identifying advanced CKD patients	Evaluate impact of the implementation tools on patient identification and nephrology consult/referral	Step-wise instructions for performing the evaluation	
Patient Management	Practice managing advanced CKD patients	Evaluate impact of the implementation tools on patient management	Step-wise instructions for performing the evaluation using the advanced CKD management flow sheet (used as a management tool)	





## REFERENCES

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