

# **Chronic Kidney Disease Clinical Practice Guidelines: Implementation Strategies**

**Guidelines International Network**

**November 2, 2004**



# **The National Kidney Foundation**

*The Mission of the National Kidney Foundation is to prevent kidney and urinary tract diseases, improve the health and well-being of individuals and families affected by these diseases, and increase the availability of all organs for transplantation*

# Who Are We?

- ◆ Started in 1950 as a childhood nephrosis support group
- ◆ Concentrated on ESRD after 1964
  - Transplant for Public Relations
  - Dialysis for Patient Service and Professional Education
- ◆ Retained that focus through the 70s, 80s and most of the 90s

# Controversies in the Quality of Dialysis Care

- ◆ NKF sponsored “Controversies in the Quality of Dialysis Care” in 1993
- ◆ Recommended Guidelines

**National Kidney Foundation**

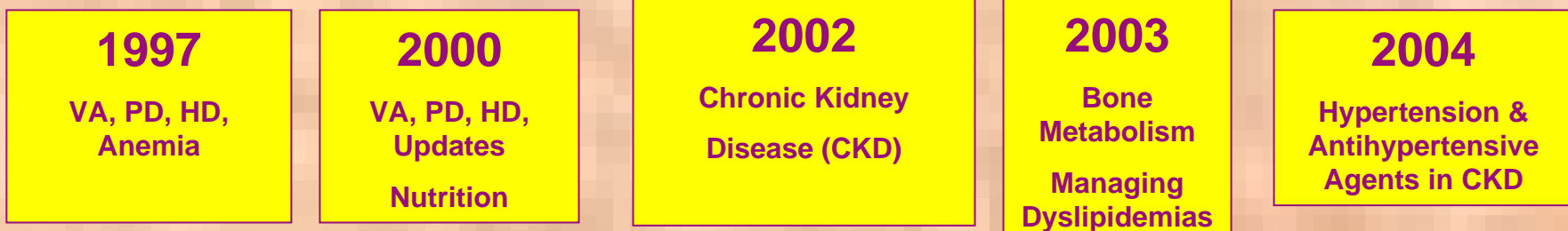
**DOQI™**

**Kidney Disease Outcomes Quality Initiative**

# NKF's K/DOQI

- **Purpose:** To improve patient outcomes through the development of clinical practice guidelines
- **Scope:** To develop guidelines that address co-morbidities and complications across the continuum of CKD
- **Process:** Guidelines are formulated with scientific rigor and undergo a structured review of content and methodology

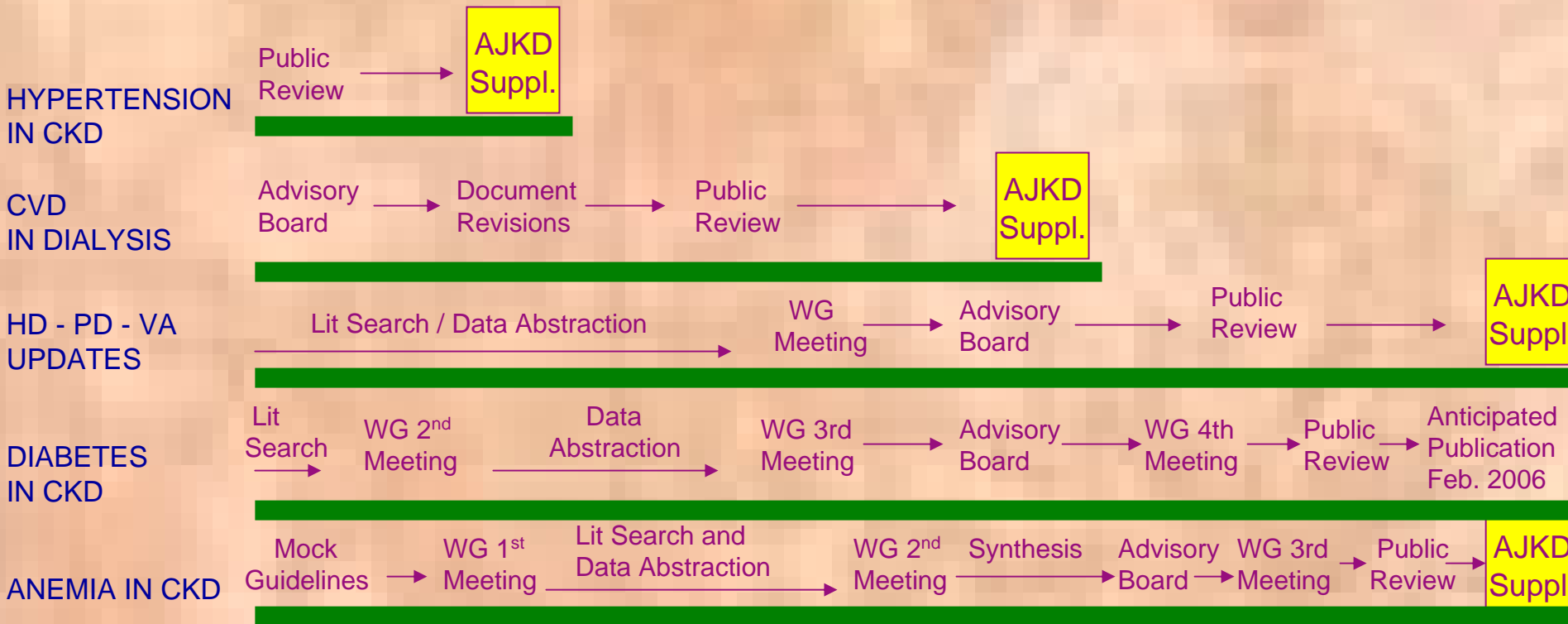
# K/DOQI Clinical Practice Guidelines



2004

2005

J F M A M J J A S O N D J F M A M J J A S O N D



# K/DOQI Guideline Process

## Development

Selection of Articles  
Abstraction Form

Data Analysis  
Formulation of Guidelines

Evidence Report  
Draft Report

## Three Stage Peer Review

## Publication

American Journal of Kidney Diseases  
Full Text on Searchable CD-Rom

[www.kidney.org](http://www.kidney.org)  
Symposia

## Implementation

Publication of Guideline Caddy  
Wall Charts and Fact Sheets  
Audio and Video Conference

PowerPoint Speaker Guide  
Patient and Family Brochures and other Tools  
CME Programs

## Guideline Update



# Changes in Treatment and Outcomes

- ◆ K/DOQI guidelines are being widely adopted
- ◆ K/DOQI dialysis guidelines are the basis for clinical performances measures in the U.S.
- ◆ Increase in delivered dose of dialysis
- ◆ Increase in hemoglobin/hematocrit levels in CKD

# Stages of Chronic Kidney Disease

Stage	Description	GFR (mL/min/1.73 m <sup>2</sup> )
1	Kidney Damage with Normal or ↑ GFR	≥ 90
2	Kidney Damage with Mild ↓ GFR	60-89*
3	Moderate ↓ GFR	30-59
4	Severe ↓ GFR	15-29
5	Kidney Failure	<15 or Dialysis

GFR = Glomerular Filtration Rate

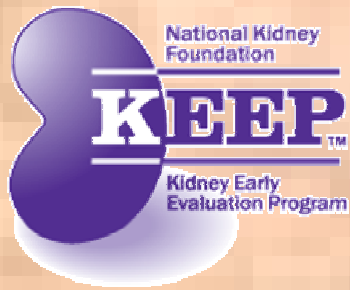
\*may be normal for age

# Changes in Treatment and Outcomes

## ◆ K/DOQI CKD Guidelines (2002):

- Causing a change in the kidney community's focus:
  - Toward CKD
  - On what to do, not whether to do something
  - Terminology and definitions are accepted
  - Staging of CKD is understood
  - NKF's numbers are being debated
  - Topics under discussion are identified as NKF topics:
    - Proteinuria measurement
    - GFR reporting
    - Early identification and treatment
- In-roads are being made in the primary care arena

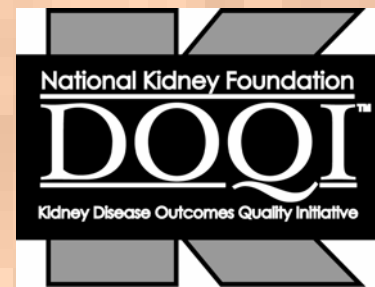
# K/DOQI Implementation



*Screening, awareness  
→ Effective intervention*

*Nationwide affiliate-based  
detection*

*Finds CKD*



*Clinical practice guidelines  
→ Improved outcomes*

*Evaluation, classification,  
stratification of CKD*

*Defines CKD*



*Awareness and education*

*→ Changes in treatment and outcomes*

# NKF's KEEP

- ◆ An evaluation program for individuals at increased risk for kidney disease
- ◆ Implemented through NKF Affiliates in the U.S.
- ◆ KEEP target audience
  - Persons with known high blood pressure and diabetes
  - Persons who have first degree relatives with high blood pressure, diabetes or chronic kidney disease

# KEEP Trends

- ◆ Approximately 90% with one or more results outside normal range
- ◆ More than 60% learned of at least one new condition for which they showed above normal risk
- ◆ 85% of people screened report that they have a doctor
- ◆ 85% of those people had seen their doctor in the past year

# KEEP

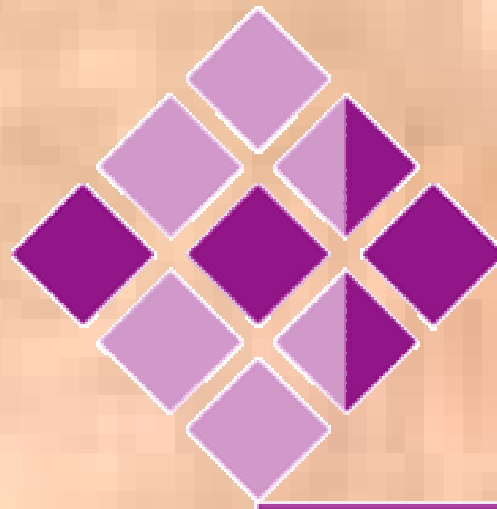
## Annual Data Report

Atlas of KEEP data published as an annual supplement to the *American Journal of Kidney Diseases* (AJKD)

Second publication: March 2005 issue

CD-Rom version at ASN: October 2004





# Kidney Learning System™

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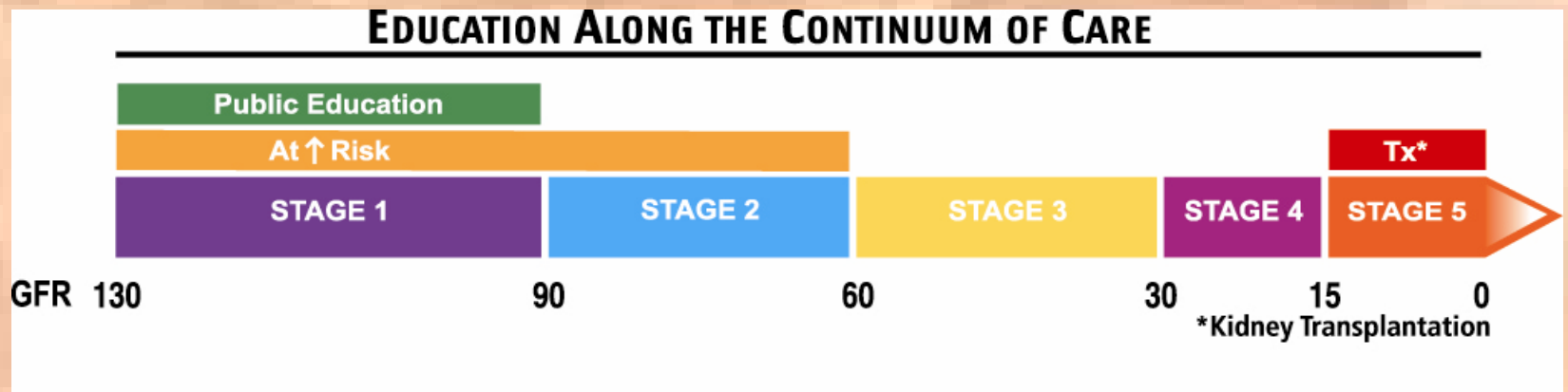
NATIONAL KIDNEY FOUNDATION

# NKF's KLS

- ◆ Addresses patient and professional education along the continuum of chronic kidney disease (CKD) care
- ◆ Structured according to the K/DOQI classification of CKD
- ◆ Integrated with all other NKF Initiatives for needs assessment

# Kidney Learning System™

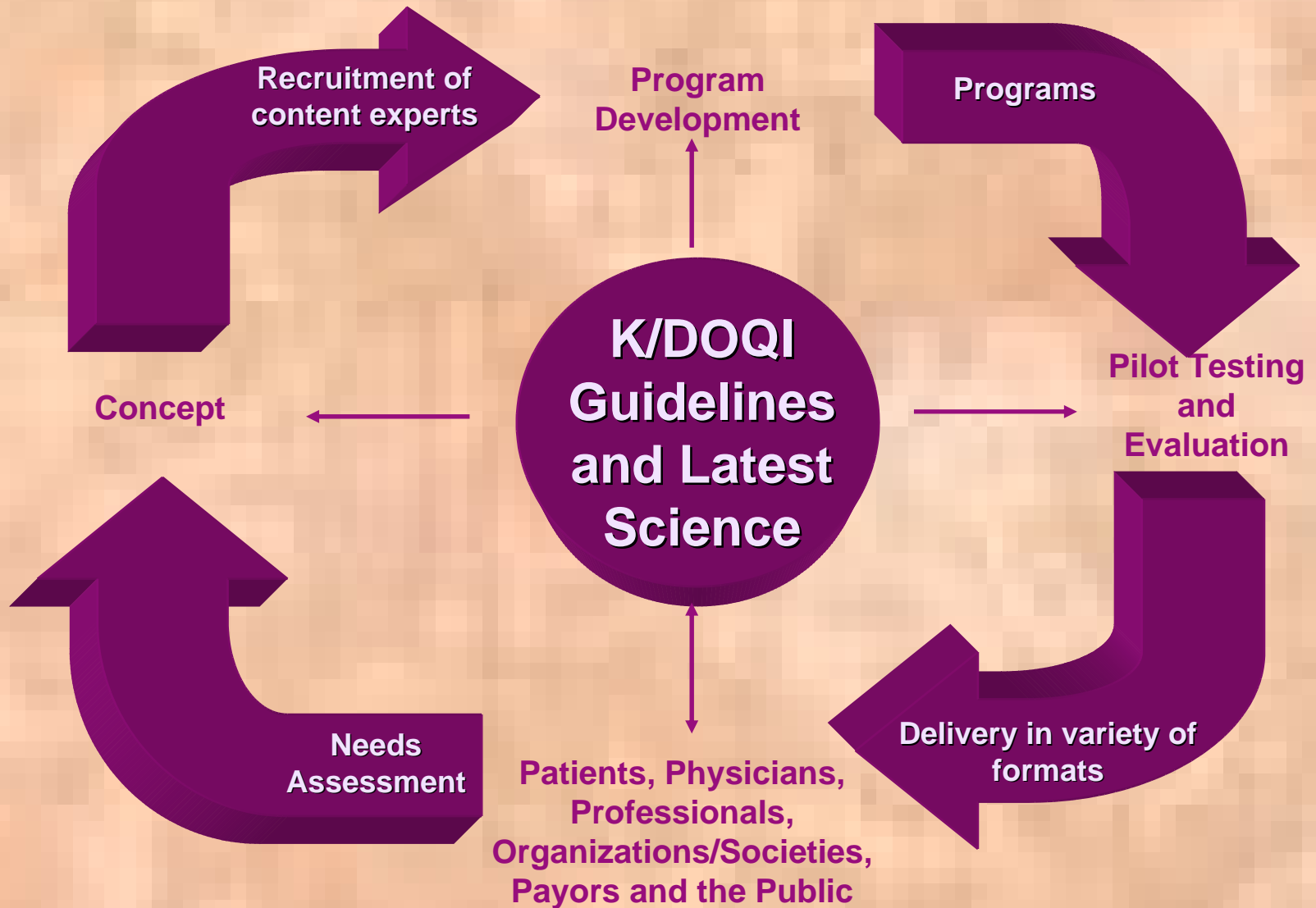
*Creating an educational matrix*



# NKF's KLS

- ◆ Meets learning needs related to:
  - Kidney awareness
  - Patient support
  - K/DOQI implementation
  - Continuing professional education
  - Clinician support

# KLS Process



# KLS Resources

- ◆ Brochures
- ◆ Books/Primers
- ◆ Ancillary Tools, e.g.,
  - **Wall Charts**
  - **Pocket Cards**
- ◆ Videos
- ◆ CD-ROMs
- ◆ Interactive Web Offerings
- ◆ Audio/Video/Internet Conferences
- ◆ NKF-Hosted Courses
- ◆ On-Site Courses
- ◆ Co-Sponsored Meetings & Symposia
- ◆ CME/CE Programs
- ◆ PDA Software
- ◆ Pocket PC Software

# KLS Web Site

The screenshot shows a web browser window with the address <http://www.kidney.org/kls/>. The page features the **Kidney Learning System™** logo and the text: "The National Kidney Foundation's **Kidney Learning System (KLS)™** provides comprehensive education along the continuum of chronic kidney disease. **KLS is information you need from people you trust.** See what's available for you."

**Latest KLS News**  
New Fact Sheets added

Information on **corporate partnerships.**

**Public Education**      **Patients**      **Professionals**      **Transplant Recipients**

**EDUCATION ALONG THE CONTINUUM OF CARE**

Public Education					
At ↑ Risk					Tx*
STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	
GFR 130	90	60	30	15	0

\*Kidney Transplantation

[About KLS](#) | [Contact Us](#) | [National Kidney Foundation](#)

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Special thanks to Dr. Steve Fadem and Nephron.com.

[Click here for the latest information on the NKF 2004 Clinical Meeting](#)

## MDRD GFR Calculator (with SI Units)

*by Stephen Z. Fadem, M.D., FACP*

Plasma creatinine

mg/dL  umol/L

Age

Race

Black  White\*

Gender

Male  Female

**GFR value:**

(Age, Race, Gender

Plasma creatinine)

Submit Query

Reset

\*All ethnic groups other than black

The formula used to estimate GFR in this application is appropriate for adults only.

[Click here to create a CKD clinical action plan for your patient](#)

# Chronic Kidney Disease (CKD): Developing a Clinical Action Plan

Enter "patient" data:

GFR  $\geq$  3 months

Kidney damage  $\geq$  3 months?

Yes  No

Comorbidities:

Hypertension (HTN)

Diabetes (DM)

Both HTN and DM

Neither HTN nor DM

**Continue**

**Reset**

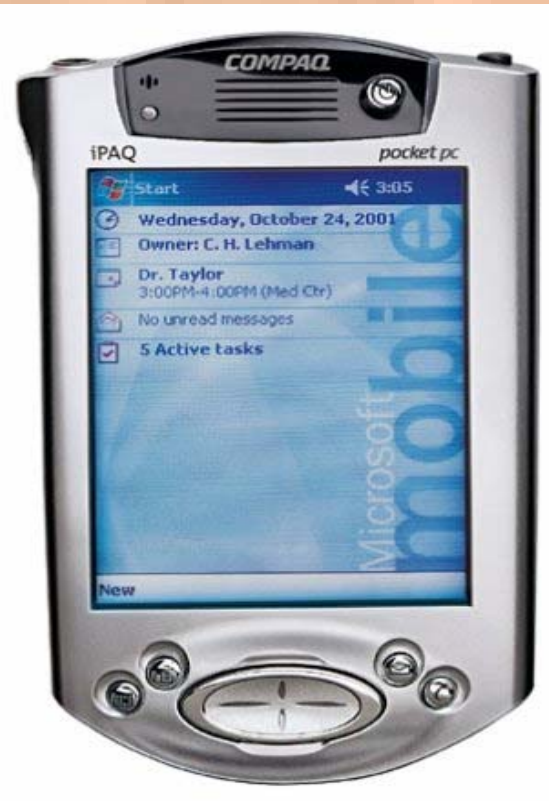
The CKD Clinical Action Plan is based on the National Kidney Foundation's K/DOQI Clinical Practice Guidelines. See definition of CKD ( CKD [Table 11](#) ) and stages of CKD: A Clinical Action Plan ( CKD [Table 33](#) )

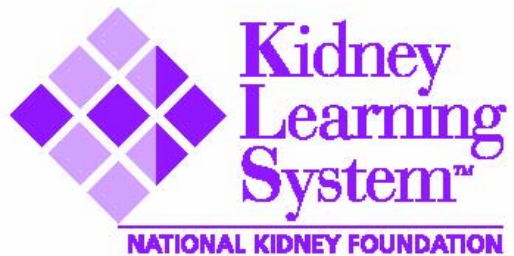
The presence of CKD should be established based on the presence of kidney damage and the level of kidney function (GFR), irrespective of diagnosis ( CKD Guideline 1 Definition and Stages of CKD; and CKD [Table 10](#) Stages of CKD).

Assess markers of kidney damage ( CKD Guideline 5. Assessment of Proteinuria; Guideline 6. Markers of CKD Other than Proteinuria; CKD [Table 62](#). Interpretation of Proteinuria and Urine Sediment Abnormalities as Markers of CKD; CKD [Table 63](#). Interpretation of Abnormalities on Imaging Studies as Markers of CKD; CKD [Table 139](#). Stages of CKD: Clinical Presentations)

**Create your own Clinical Action Plans using the  
interactive calculator on the left**

# PDA and Pocket PC Software



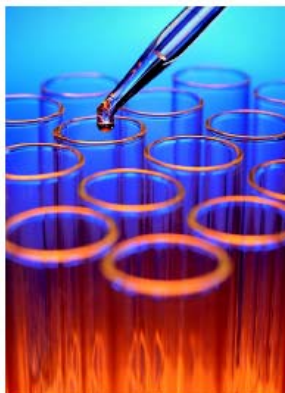


Catalog of Resources



Information  
You  
Need.

From  
People  
You  
Trust.



Information you need

from people you trust



**National Kidney  
Foundation®**

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*Making Lives Better*