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
NKF sponsored “Controversies in the Quality of Dialysis Care” in 1993

Recommended Guidelines
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 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
- 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

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>GFR (mL/min/1.73 m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kidney Damage with Normal or ↑ GFR</td>
<td>&gt; 90</td>
</tr>
<tr>
<td>2</td>
<td>Kidney Damage with Mild ↓ GFR</td>
<td>60-89*</td>
</tr>
<tr>
<td>3</td>
<td>Moderate ↓ GFR</td>
<td>30-59</td>
</tr>
<tr>
<td>4</td>
<td>Severe ↓ GFR</td>
<td>15-29</td>
</tr>
<tr>
<td>5</td>
<td>Kidney Failure</td>
<td>&lt;15 or Dialysis</td>
</tr>
</tbody>
</table>

GFR = Glomerular Filtration Rate
*may be normal for age

- 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
Clinical practice guidelines
  → Improved outcomes

Evaluation, classification, stratification of CKD

Defines CKD

Screening, awareness
  → Effective intervention

Nationwide affiliate-based detection

Finds 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
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
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
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

Education Along the Continuum of Care

GFR 130

- Public Education
- At Risk
- Stage 1
- Stage 2
- Stage 3
- Stage 4
- Stage 5

Tx* (Kidney Transplantation)
NKF’s KLS

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

Program Development

Pilot Testing and Evaluation

Delivery in variety of formats

K/DOQI Guidelines and Latest Science

Patients, Physicians, Professionals, Organizations/Societies, Payors and the Public

Recruitment of content experts

Concept

Needs Assessment

Programs

Recruitment of content experts

Concept

Needs Assessment
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
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.

Information on corporate partnerships.
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)

*All ethnic groups other than black

The formula used to estimate GFR in this application is appropriate for adults only.
Chronic Kidney Disease (CKD): Developing a Clinical Action Plan

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
Kidney Learning System™
NATIONAL KIDNEY FOUNDATION

Catalog of Resources

From People You Trust.

Information You Need.

National Kidney Foundation
Making Lives Better
Information you need from people you trust