CKD Treatment Algorithm

CKD Stage 1 - 2

eGFR $\leq$ 60
mL/min/1.73 m^2
Urinary albumin-creatinine (ACR) > 30 mg/g x 2

PRIMARY CARE
Assess Complications

LABS
- BP monitoring q 3-12 mo.
- eGFR q 12 mo.
- Urinalysis q 3 -12 mo. to assess hematuria, proteinuria, microalbuminuria
- Lipids q 12 mo.
- If diabetic, Hgb A_1C and microalbuminuria q 12 mo.
- Hgb q 12 mo. if > 11 gm/dL

RISK ASSESSMENT
- Avoidance of nephrotoxic agents & dyes
- Spare non-dominant arm above wrist from venipuncture and IV catheters
- Immunizations
  - -Flu vaccine q 12 mo.
  - -Pneumovax, as indicated
  - -Hep B vaccine, as indicated
- Assess cardiovascular risk:
  - - Smoking cessation
  - - Physical activity

EDUCATION
- Cardiovascular risk
- Medications to avoid
- Immunizations

CKD Stage 3

eGFR 30 - 59
mL/min/1.73 m^2

CO-MANAGEMENT
Assess Complications

LABS
- BP monitoring q 3-12 mo.
- eGFR q 3-12 mo.
- Urinalysis q 6-12 mo.
- Lipids q 2 mo.
- If diabetic, Hgb A_1C and microalbuminuria q 12 mo.
- Hgb > 11 q 3-6 mo < 11 q 1-3 mo
- Lytes and glucose q 12 mo.
- PTH, Ca & P q 3-12 mo.

RISK ASSESSMENT
- Avoidance of nephrotoxic agents & dyes
- Spare non-dominant arm above wrist from venipuncture/IV cath
- Avoid subclavian and PICC lines
- Immunizations
  - -Flu vaccine q 12 mo.
  - -Pneumovax, as indicated
  - -Hep B vaccine, as indicated
- Assess cardiovascular risk:
  - - Smoking cessation
  - - Physical activity

EDUCATION
- Cardiovascular risk
- Medications to avoid
- Immunizations
- Nutrition: Diet low in salt & K^+
- Renal bone disease

CKD Stage 4

eGFR 15 - 29
mL/min/1.73 m^2

NEPHROLOGY
Assess Complications

LABS
- BP monitoring q 3-6 mo.
- eGFR q 3-6 mo.
- Lipids q 12 mo.
- If diabetic, Hgb A_1C and microalbuminuria q 12 mo.
- Hgb q 3-6 mo, monthly if on ESA
- PTH, Ca, P. q 3-6 mo.

RISK ASSESSMENT
- Avoidance of nephrotoxic agents & dyes
- Spare non-dominant arm above wrist from venipuncture/IV cath
- Avoid subclavian and PICC lines
- Immunizations
  - -Flu vaccine q 12 mo.
  - -Pneumovax, as indicated
  - -Hep B vaccine, as indicated
- Assess cardiovascular risk:
  - - Smoking cessation
  - - Physical activity

EDUCATION
- Cardiovascular risk
- Medications to avoid
- Immunizations
- Nutrition: Diet low in salt, phos & K^+
- Renal bone disease
- Anemia
- Vascular access placement
- Modality options

REFERRALS
- Surgeon for "fistula only" placement if hemodialysis modality choice
- Transplant center for eval

CKD Stage 5

eGFR < 15
mL/min/1.73 m^2

NEPHROLOGY
Assess Complications

LABS
- eGFR q 1-3 mo.
- Lipids q 12 mo.
- If diabetic, Hgb A_1C and microalbuminuria q 12 mo.
- Hgb monthly
- PTH, Ca, P q 1-3 mo.
- Measure 25(OH)D
- HBV titer

RISK ASSESSMENT
- Avoidance of nephrotoxic agents & dyes
- Spare non-dominant arm above wrist from venipuncture/IV cath
- Avoid subclavian and PICC lines
- Immunizations
  - -Flu vaccine q 12 mo.
  - -Pneumovax, as indicated
  - -Hep B vaccine, as indicated
- Assess cardiovascular risk:
  - - Smoking cessation
  - - Physical activity

EDUCATION
- Cardiovascular risk
- Medications to avoid
- Immunizations
- Nutrition: Advise diet low in fluids, salt, phos. & K^+
- Renal bone disease
- Anemia
- Vascular access monitoring
- Modality options
- Evaluation for kidney transplant

REFERRALS
- Surgeon for "fistula only" placement if hemodialysis modality choice
- Transplant center for eval

UPPER MIDWEST FISTULA FIRST COALITION

Prepared by the Renal Network of the Upper Midwest, Inc.
Please call 1-800-973-3773 for questions or reprint requests.

The Kidney Disease Outcomes Quality Initiative (KDOQI) recommendations for *Chronic Kidney Disease: Evaluation, Classification, and Stratification* were used to develop portions of these documents.