# Appendix C
## Guideline Comparison

### Comparison of KDOQI, ADA, and JNC-VII Guidelines. Focus on CKD-Related Guidelines

| KDOQI (NGC, from Am J Kidney Dis 2002 Feb) | ADA (in "Standards of Medical Care," Diabetes Care 30 (supp1) 2007 Jan) | JNC-VII |
|---|---|---|
| #1: Definition and Stages of CKD defined by GFR | | |
| #2: Evaluation and Treatment.<br>1. CKD patients should be evaluated for diagnosis, comorbidities, severity, complications, risk for loss of kidney function, risk for CVD<br>2. Treatment of CKD should include dx-based therapy, E&M of comorbidities, slowing loss of kidney function, prevention and treatment for CVD, cx of dec. kidney function, preparation for replacement, and replacement/transplant<br>3. Develop clinical action plan.<br>4. Review medication<br>5. Incorp. S/M into tx plan<br>6. Referral to nephrologist for eGFR<30 | V.A. The comprehensive diabetes examination includes, among other components, tests for microalbuminuria and serum creatinine (and calculation of eGFR) | Physical exam should include… examination of the abdomen for enlarged kidneys, masses, and abnormal aortic pulsation…<br><br>Routine laboratory tests recommended before initiating therapy include …blood glucose and hematocrit; serum potassium, creatinine (or the corresponding estimated glomerular filtration rate [GFR]), and calcium; and a lipid profile… Optional tests include measurement of urinary albumin excretion or albumin/creatinine ratio.. |
| #3: Patients at increased risk for CKD should be assessed | | |

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| #4: eGFR should be used for assessment.<br>Serum creatinine alone is insufficient<br>Labs should report eGFR in addition to creatinine<br>Timed GFR necessary only in exceptional circumstances | | |
| #5: Assessment of proteinuria.<br>Spot urine for most circumstances<br>Dipsticks acceptable in most; if positive, confirm using quantitative w/in 3 mos.<br>Adults: screen using albumin-specific of albumin to creatinine; monitor CKD patients using albumin-to-creatinine<br>*More details that specifically relate to children* | | Serum potassium and creatinine should be monitored at least 1–2 times/year. |
| #6: CKD markers other than proteinuria<br>a. urine sediment or red/white blood dipstick for CKD or at risk for CKD<br>b. kidney imaging for CKD or at risk for CKD<br>c. other markers show promise; not ready yet | | |
| #7: GFR and HTN<br>a. monitor BP for all with CKD<br>b. treat HTN using target BP, nonpharm therapy, and specific Rx agents (see GL 13 and GL 15) | VI.A.1 Measure BP at each visit<br>Goal of 130/80<br>ACE/ARB | |
| #8: GFR and anemia<br>Evaluate GFR<60 for anemia, incl. hemoglobin | | |
| #9: GFR and nutrition<br>GFR<60 assess protein and energy intake | V.D. Consultation with RD, weight loss, reduce fat/carb intake | |
| #10: Bone disease and Ca and Ph metabolism<br>GFR<60 evaluate for bone disease | | |

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|---|---|---|
| #11: Neuropathy<br>Assess CKD patients for neurologic involvement | VI.D Annual screen | |
| #12: GFR and functioning<br>GFR<60 assess for functioning and well-being | | |
| #13: CKD progression<br>a. assess GFR decline<br>b. estimate rate of decline<br>c. intervene with all CKD patients: glucose control for diabetics, BP control, ACE/ARB.<br>(Protein restriction, lipid-lowering, and partial correction of anemia inconclusive)<br>d. Prevent and correct acute decline due to common causes: volume depletion, IV radio contrast, some antimicrobial Rx, NSAIDs, use of ACE/ARBs, cyclosporine/ tacrolimus, urinary tract obst.<br>e. Annually measure eGFR, more often for GFR<60, history of rapid decline (>4/year), risk factors for rapid progression, treatment for progression, risk of acute GFR decline | VI.A.1 Measure BP at each visit<br>Goal of 130/80. ACE/ARB<br>VI.B To slow CKD progression, optimize glucose and BP control. All diabetics: annual test for microalbuminuria; annual serum creatinine (to yield eGFR, the best method for evaluating kidney function) | CKD defined by eGFR<60 and/or albuminuria<br>Target BP 130/80.<br>ACE/ARB recommended; temporary creatinine increase of up to 35 percent OK unless hyperkalemia develops.<br><br>For eGFR<30, loop diuretics recommended. |
| #14: CKD & diabetes<br>a. CKD with diabetes: follow published guidelines for diabetics<br>b. ACE/ARB particularly important<br>c. CKD have "higher risk" of diabetic c/c | VI.B. For treating micro/macroalb., ACE/ARB unless pregnant.<br>Reduce protein intake<br>Monitor serum potassium if taking ACE/ARB<br>Cont. surv. of microalb/proteinuria<br>Refer to expert in diabetic/renal if eGFR<60.<br>*Refer to nephrologist if eGFR<30 (in text, not a guideline)* | Thiazide diuretics, BBs, ACEs, ARBs, and CCBs |
| #15: CKD and CVD<br>CKD are highest risk for CVD<br>Measure CKD for "traditional" CVD risk | VI.A annual lipid panel. Statins recommended for most patients. | |