Diabetes Renal Disease Prevention, Detection, Treatment and Monitoring
Type 1 and Type 2; age 12 years and older with no overt renal disease

Originally published: November 2001; Updated January 2005/July 2010/April 2013
Washington State Clinical Advisory Council to the Washington State Department of Health
Adapted and modified for use by the Advisory Council with permission from the
Washington State Department of Health Diabetes Kidney Screening & Treatment Task Force

Urinalysis for protein\(^1\) (Done at time of diagnosis or for annual test for proteinuria)
UA may be positive or elevated in the setting of poor glucose control,
UTI, heavy exercise, fever or sepsis--treat as appropriate before re-testing.

- **Positive for protein 1+ or greater**
  - Quantitate total protein with a 24-hour urine specimen or a spot AM protein/creatinine ratio (mg protein/ mg creatinine);
  - Is urine protein>1g/day or 1000mg/g creatinine or ratio>1.0?
  - **Yes**
    - Refer to Nephrology for diagnosis, treatment options & patient preparation & education
  - **No**

- **On ACE-Inhibitor or ARBs\(^3\)?**
  - **Yes**
    - Is K+>5.5 mEq/L or Cr>2.0 mg/dL?
    - **Yes**
      - Consider Consult with Nephrology for diagnosis and treatment options
    - **No**
  - **No**

- **Test for Microalbuminuria\(^2\)**
  - Positive
    - Definition of Microalbuminuria:
      - Microalbuminuria: 0.03-0.30 mg albumin/mg creatinine;
        - 30-300 mcg albumin/mg creatinine (spot collection);
        - 20-200 mcg albumin/min (timed collection); or
        - 30-300 mg albumin/24hr (24hr collection)
      - Macroalbuminuria is greater than upper limit
    - Repeat microalbuminuria test
  - **Negative**

- **2 of 3 Tests positive?**
  - **Yes**
    - Annual test for microalbuminuria
    - Continue Renal Protective Recommendations
  - **No**

**Renal Protective Recommendations for persons with diabetes:**
1. Strict glucose control measured by glycated hemoglobin ≤7.0% using an NGSP\(^4\)-certified method
2. Strict blood pressure control ≤130/80 mmHg
3. Strict lipid evaluation (fasting specimen) and treatment:
   - Cholesterol <200 mg/dL
   - LDL <100 mg/dL
   - HDL >45 mg/dL
   - Triglycerides <150 mg/dL

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\(^1\)Check with your lab on test choice and availability, specimen collection, preference, and interpretation.
\(^2\)Most labs use a very sensitive method to measure albumin in the microalbumin range. Check with your lab on test choice and availability, specimen collection, preference, and interpretation.
\(^3\)ARBs: Angiotensin Receptor Blockers
\(^4\)NGSP: National Glycohemoglobin Standardization Program

FOR EDUCATIONAL PURPOSES ONLY
The individual clinician is in the best position to determine which tests are most appropriate for a particular patient