

**National Institutes of Health
Warren Grant Magnuson Clinical Center
Nursing Department**

SOP: Care of the Adult Patient Receiving a Renal Biopsy Post Renal Transplant

Background Information:

Renal biopsies are performed for many clinical reasons. This SOP will address only the post renal biopsies performed after transplant of the kidney.

Renal biopsies on transplanted patients are performed for diagnostic purposes at protocol driven time frames as indicated according to condition: increased creatinine or beta 2 microglobulin, acute graft pain, proteinuria, or marked hematuria. A renal biopsy transplant differs from a native kidney biopsy due to the anatomical surgical position of the graft. Therefore, the biopsy is performed in supine position under local anesthesia.

I. Pre-Procedure

A. Assessment

1. Assess patient for conditions which may increase risk of bleeding such as thrombocytopenia, coagulopathy, or medications which may prolong bleeding time such as ASA, Coumadin, heparin, and enoxaparin.
2. Vital signs including temperature, pulse, respirations, BP, weight, and pulse oximetry.
3. Assure that all needed supplies are at bedside (see appendix A)

B. Interventions

1. Verify completed consent in chart for each renal biopsy
2. Complete patient teaching relative to renal biopsy.
3. Verify that recent laboratory test results (CBC + diff, PT, PTT, Chem 20, Beta 2 Microglobulin, and UA) are in chart/MIS and are within protocol parameters.
4. Verify that the bedside renal ultrasound is ordered and scheduled in MIS.
5. Have patient void just prior to biopsy.

II Intra-Procedure

A. Assessment

1. Assess Q 15 minutes, vital signs including temperature, pulse, respirations, BP, and pulse oximetry.

B. Interventions

1. Remain with patient during procedure
2. Using sterile gloves apply 4 X 4 gauze with manual pressure over biopsy site for 10 - 15 minutes or as directed by physician.

III. Post-Procedure

A. Assessment

1. Assess biopsy site for bleeding, swelling, skin color changes, and pain Q 15 minutes X 4, Q 30 minutes X 2, Q1 hour X 2, then PRN based on patient condition.

B. Intervention

1. Apply sandbag immediately to the biopsy site after post-biopsy US is completed. The sandbag remains in place for 4 hours.
2. Instruct patient to maintain strict bedrest for 4 hours after biopsy. The bed must be left flat for the first hour and then may be raised to no greater than 15 degrees.

3. Monitor TPR, BP, and pulse oximetry Q 15 minutes X 4, Q 30 minutes X 2, Q1 hour X 2, then PRN based on patient condition.
4. Assist patient with ambulation for one hour after the 4-hour bedrest period.
5. Obtain stat CBC to be drawn 5 hours after biopsy.
6. Notify physician of CBC results
7. Ensure that patient has voided before discharge from unit.
8. Assure that special biopsy equipment is processed correctly (see appendix A)

IV. Documentation

1. Document in MIS assessments and interventions.
2. Place copy of renal ultrasound on physician progress note.

V. Discharge Criteria

A. Interventions

Provide DC teaching to include:

1. When to contact the transplant unit staff:
 - a. graft site pain
 - b. bloody or foul smelling urine
 - c. discharge from the biopsy site (blood or purulent material)
 - d. fever (over 38/100.5 degrees) or chills
 - e. decreased urinary output or more concentrated urine.
 - f. difficulty urinating or inability to urinate
2. Instruct patient to shower and remove bandage covering biopsy site the morning after the biopsy
3. Report back to the transplant unit in 24 hours after the biopsy.

References:

1. Lancaster, L. (ED) (1995). Core Curriculum for Nephrology Nursing. 3rd Edition. American Nephrology Nursing Association
2. Greenberg, A. (ED) (1998). Primer on Kidney Diseases. 2nd Edition. National Kidney Foundation. Academic Press
3. Evans, Michelle & Taylor, Jerry, CC Safety officer & CC CHS Nurse Consultant, CC Glutaraldehyde Surveillance Program, July 1999.
4. Fahey, B. CC HES officer, Memorandum on policy and procedure for disinfection of transducers, 9-17-1999.

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Appendix A: SOP: Care of the Adult Patient Receiving a Renal Biopsy Post Renal Transplant

Renal Biopsy After Kidney Transplant Supply List

Basic biopsy tray	One purple marking pen
Sterile 21 gauge Pajunk™ 3 1/2 “spinal needle	One 8 oz. Sterile Saline bottle
One 16 oz. Bottle of Betadine	One sandbag
3 sterile barriers	2 patient towels
One formalin container	One patient gown
2 sterile containers	One CHS transport tray
One 4X4 sterile gauze	One sterile needle guide (linear or sector at MD request
One 3X4 telfa pad	One pre-printed “biopsy” progress note
One sterile needle guide kit	2 pairs of sterile gloves (for the doctor and the nurse)
One sterile 16 gauge biopsy gun	10 cc vial of 1 % lidocaine without epinephrine
3 patient labels	

Attention:

After procedure, place used biopsy guide in CHS plastic carrier (OSHA transport tray). Sometimes guide is sent via carrier to CHS. RN to ensure that CHS employee receives biopsy guide for cleaning. In the event the guide is needed more quickly, ensure that guide in carrier is brought to the OR for flash autoclaving. The US probe is placed in (Cidex™/Glutaraldehyde for 45 minutes for disinfection).