**UW Medicine - Pathology**

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Microtomy of Frozen Kidney Sections Procedure

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| Adopted Date: 09/22/93Review Date: 12/03/08Revision Date: 04/11/11 |

PURPOSE

Guidelines for sectioning kidney needle and wedge biopsies.

SCOPE

For all histotechnologists working on the renal service.

PROCEDURE

1. **Microtomy of Frozen Kidney Sections**:
	1. Sections of frozen kidney tissue are cut at 4 microns for immunofluorescence and placed on super-frost plus slides.
	2. Initial sectioning of frozen kidney tissue is examined to identify glomeruli to proceed with sectioning.
	3. Cut two levels of unstained for each slide with a total of 12 slides per case.
	4. Sections are fixed in cold Acetone for 5 minutes.
	5. Drain and give to IHC for staining.
	6. Two additional slides are needed for H&E staining. They are the first and last slides cut.
	7. Total slides per case of Kidney:
		* 12 slides unstained sections, 2 per slide
		* 2 slides H&E
2. **Stat H&E Staining for Frozen Kidney Sections**:
	1. Fix in 10% buffered formalin for 1 minute.
	2. Wash in H2O.
	3. Stain in Gill's 3 Hematoxylin for 45 seconds to 1 minute.
	4. Wash in H2O.
	5. One drip in acid alcohol, 0.5%.
	6. Wash in H2O.
	7. 15 seconds in Bluing.
	8. Wash in H2O.
	9. Dip in 80% alcohol.
	10. Eosin and Phloxine for 30-45 seconds
	11. Proceed thru 95%, 100% xylene
	12. Coverslip
3. **Routine H&E Staining:**
4. For paraffin kidney biopsies, cut all sections at 2 microns.
5. Kidney biopsies are sectioned at the following thickness:
	1. Jones stain - 2 microns
	2. PAS Hematoxylin stain - 2 microns
	3. MT stain - 2 microns
	4. H&E stain - 2 microns
6. Kidney biopsies embedded in plastic are sectioned as the following:
	1. Level 1

 - Jones

 - PAS

 - H&E

1. Level 2

 - Jones

 - PAS

 - H&E

1. Level 3

 - Jones

 - PAS

 - MT

 - H&E

1. The following sections are stained: Jones, PAS, and MT.
2. Paraffin kidney biopsies are cut in the following order at 2 microns:
	1. Level 1

 - Jones

 - PAS

 - H&E

1. Level 2

 - Jones

 - PAS

 - H&E

1. Level 3

 - Jones

 - PAS

 - MT

 - H&E

1. MT stain is only cut at level 3 for paraffin biopsies.

REFERENCE

Charles E. Alpers, MD, University of Washington Medical Center.

Written By: Director Approval:

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Histology Supervisor