

# **Section 3:**

# **Educational Activities**

## SECTION 3: EDUCATIONAL ACTIVITIES

### Overview

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#### Introduction

Education of the postgraduate physician in the specialty of Anatomic and Clinical Pathology is the highest priority at the LAC+USC Medical Center/VAGLAHS Pathology Residency Training Program.

The Core Curriculum includes numerous lectures (which are cycled approximately every two years, except for introductory lectures which are given annually), tutorials, seminars and teaching conferences. The faculty members that teach the Pathology Residents are highly committed to the teaching of our residents.

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#### ACGME

The Keck School of Medicine at USC/LAC+USC Medical Center/VA Greater Los Angeles Healthcare System Pathology Residency Training Program is accredited by the Accreditation Council on Graduate Medical Education (ACGME). ACGME Field Representatives periodically review the training program with respect to the ACGME Program Requirements, which will be updated on July 1, 2007 and can be viewed at [www.acgme.org](http://www.acgme.org). The Field Representative's findings are reported back to the Pathology Residency Review Committee (RRC), which is a committee of pathologists that meet two times per year, and it is the Pathology RRC that makes the decision on the accreditation status of a residency or fellowship program. Our residency training program was recently awarded the maximum interval between visits, with Continued Accreditation status. The approximate date of the next site visit is in September 1, 2010.

**With the Letter of Notification, there were two areas identified by the Pathology RRC for follow-up during the next accreditation site visit, noted below:**

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- Has the program been provided with new space as currently planned? (The space for resident offices at the USC University Hospital)
  - What is the nature and extent of required resident education in pediatric pathology?
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## Overview, Continued

### Educational Requirements

### ACGME Program Requirements with Index Case requirements

- Autopsy: 50 cases, residents may share all 50 cases, between two residents only. Histology required only when indicated on forensic autopsies; otherwise all autopsies must have residents participate in the seven elements (see learning objectives)
- Surgical Pathology: 2,000 cases
- Cytopathology (Paps, non-gynecologic exfoliatives, FNA's): 1,500 cases
- O.R. Consultations (including frozen sections): 200
- Clinical Pathology: No index case requirements
- Accredited programs are four years in length for AP/CP
- With the new ACGME Program Requirements in effect as of June 2004, residency training is competency-based learning. This means that promotion is not automatic according to the number of months done in a given rotation. Each rotation has defined goals and objectives that the resident must achieve documented competency. **The resident and the attending staff both take responsibility** to ensure that the attending staff reviews the goals and objectives and signs and dates the performance evaluation form in an ongoing fashion.

### American Board of Pathology requirements for board eligibility

- Autopsy: 50 cases; Histology required only when indicated on forensic autopsies
- Surgical Pathology: No index case requirement
- Cytopathology: No index case requirement
- O.R. Consultations: No index case requirement
- Clinical Pathology: No index case requirement
- Minimum 18 months in Clinical Pathology
- Minimum 18 months in Anatomic Pathology
- The remaining 12 months of training may be a continuation of structured anatomic pathology and/or clinical pathology education or may be devoted to a specialized facet of pathology, including research.

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**Overview, Continued**

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## Core Curriculum

Rotation	Number of 4-week rotations
<b>Clinical Pathology (Total of 18 rotations)</b>	
Chemistry, Immunology, Informatics and Microbiology (CIMM1 and 2, CIMM 3 - Informatics to have a dedicated month during these 3 months, Virology and Parasitology – two weeks) at LAC	3 rotations
Chemistry and Microbiology, (Microbiology, excluding virology and parasitology; case studies in chemistry) at VAGLAHS (VCM1, VCM2)	2 rotations
Junior rotation for Transfusion Medicine (VTM1) at VAGLAHS	1 rotation
Junior rotation for Transfusion Medicine (TM2) at LAC	1 rotation
Senior rotation for TM3 at LAC 2 wks Harbor-UCLA 2 wks	1 rotation
Senior rotation, Credentialing Month for TM4 at LAC	1 rotation
Hematology (2 months at VAGLAHS)	2 rotations
Hematology (2 months at LAC)	2 rotations
Coagulation/Special Hematology (CSH) at LAC	1 rotation
Molecular Pathology, (MP) including Cytogenetics at VAGLAHS	2 rotations
CP Elective: 1 month at LAC, 1 month at VA	2 rotations
<b>Anatomic Pathology (Total of 28 rotations)</b>	
Autopsy/Surgical Pathology at VAGLAHS (VAU)	5 rotations
Autopsy/Neuropathology at LAC (AU)	2 rotations
Medical Examiner's* (ME)	1 rotation
Dermatopathology at VAGLAHS (SPVA)	1 rotation
Surgical Pathology at LAC GH (SPGH)	4 rotations
Surgical Pathology at LAC WCH (SPWH)	4 rotations
USC University Hospital (UH) (Surgical Pathology and Autopsy)	4 rotations
Cytology (CY)	4 rotations
Renal Pathology/Pulmonary Pathology/Electron Microscopy (RPE)	1 rotation
Lymph Node Pathology (LNP)	1 rotation
Pediatric Pathology (CHLA) (Surgical Pathology and Autopsy)	1 rotation
<b>Elective, Anatomic or Clinical Pathology</b>	2 rotations
<b>Vacation (4 rotations)</b>	4 rotations
<b>TOTAL:</b>	52 rotations

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## Core Curriculum, Continued

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\*A total of 50 autopsies including microscopics on all hospital based autopsies; and when indicated on forensic autopsies. As of July 1, 2007, all 50 autopsies can be shared between two residents per the Pathology Residency Review Committee (RRC), must be performed by the conclusion of the (Autopsy/Coroner's) months or the resident will return to the Autopsy Service for an additional month. The distinction between "primary prosector" and "secondary prosector" has been discontinued by the Pathology RRC as the responsibility over the autopsies are to be equally shared between the two residents.

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The following table at the top of page 3 – 8 describes the possible rotation schedule over the duration of the residency training (Resident Curriculum Over the Course of the Four Year Residency, FY 2006-07).

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**Core Curriculum, Continued****Resident AP/CP Curriculum Over the Course of the  
Four Year Residency, Starting 2006-07**

13 Rotations

First Year in Program	Surgical Pathology & Autopsy VA 1 & 2	Vaca-tion	Surgical Pathology & Autopsy VA 3 & 4	TM1 VA	TM2 LAC	VCM1 & VCM2	Surgical Pathology GH 3 & 4	HP1 VA	HP2 LAC			
Second Year in Program	Cytology 1 & 2	Cyto-genetics (Molecular Pathology) VA	Surgical Pathology WCH 5 & 6	TM 3 LAC Donor Room Harbor-UCLA	Vaca-tion	Autopsy, Liver and Neuropathology LAC 3 & 4	USC University Hospital 1 & 2	CIMM 1 & 2				
Third Year in Program	TM4 LAC	Cytology 3 & 4	Vaca-tion	ME	Surgical Pathology & Autopsy VA 7 & 8 (Dermpath during 8)	HP3 LAC	LNP	Surgical Pathology WCH 9 & 10	Surgical Pathology GH 11 & 12			
Fourth Year in Program	CIMM 3	HP4 VA	Renal Pulmonary EM	USC University Hospital 3 & 4	Coag/ Special Heme	Vaca-tion	Molecular Pathology VA	CP elective LAC	Pediatric Pathology CHLA	CP elective VA	AP elective LAC	AP elective LAC

**Core Curriculum Changes**

Beginning December 1, 2003, the Autopsy and Neuropathology rotations were separated from by the Surgical Pathology General Hospital rotation and are once again separate rotations. Also, the Autopsy and Surgical Pathology rotations at the VAGLAHS were made separate rotations.

Beginning July 1, 2002, the ACGME Program Requirements for AP/CP training programs changed back to a four-year curriculum. The Graduate Medical Education Committee has accordingly made the revisions as a result of the merger, and with the input of faculty and residents from both hospitals from an extensive internal review process. (26 months AP + 19 months CP + 3 months elective) shown on page 3 – 8, which was reviewed and approved by the Chairman, Clive R. Taylor, M.D., Ph.D.

Per ACGME mandated annual curriculum review, and based upon a survey of Pathology Program Directors in the United States, and based upon the ACGME Site Visit, the following changes were made for Academic Year 2006-07:

- Transfusion Medicine core curriculum was reduced from 5 to 4 months
- Cytopathology was reduced from 5 to 4 months
- Molecular Pathology (including cytogenetics) was reduced from 3 to 2 months
- Pediatric Pathology will be added (1 month)
- Clinical Pathology elective months added (1 LAC month, 1 VA month)

## Core Curriculum Lectures, Tutorials, Seminars and Conferences

### Lectures

The Core Curriculum which contains the essential foundations in anatomic pathology is taught during the 8:00 a.m. conference hour. Also, the morning conference covers certain “credentialing” lectures, such as the Histotechniques Lecture Series, and are listed below. Residents are required to attend these lectures at least once during their residency. In cytopathology, the introductory lectures are given in closer proximity to the clinical rotations in cytopathology.

### Discipline Anatomic Pathology

<b>Lecture Title</b>	<b>Faculty</b>
Approach to granulomas/Pneumocystis	Dr. Koss
Glomerulopathy/Glomerulonephritis I	Dr. Koss
Glomerulopathy/Glomerulonephritis II	Dr. Koss
Interstitial Lung Disease	Dr. Koss
Lung Cancers (WHO) – Neuroendocrine and BACs	Dr. Koss
Lung Cancers (WHO) - Unusual Lung Tumors	Dr. Koss
Lung Vasculitis	Dr. Koss
Perinatal Pathology 1	Dr. Pavlova
Perinatal Pathology 2	Dr. Pavlova
Placental Pathology	Dr. Pavlova
Tubulo-interstitial Disease & Obstructive Uropathy	Dr. Soni
Introduction to Surgical Pathology	Dr. Naritoku
Introduction to Histotechniques	Dr. Naritoku
Introduction to Histochemistry, Part 1	Dr. Naritoku
Introduction to Histochemistry, Part 2	Dr. Naritoku
Introduction to Immunohistochemistry, Part 1	Dr. Naritoku
Introduction to Immunohistochemistry, Part 2	Dr. Barr
Quality Assessment and Value Improvement in AP	Dr. Naritoku
Introduction to Exfoliative and Fine Needle Aspiration (FNA) Cytology	Dr. Cobb
The Bethesda System (TBS) 2001	Dr. Naritoku
Normal Gynecologic (GYN) Cytology and Benign Diseases of the Female Genital Tract (FGT)	Dr. Naritoku
The Cytology of Squamous Intraepithelial Lesions (SIL) and Invasive Squamous Carcinoma of the Cervix	Dr. Florentine
The Cytology of Glandular Lesions and Other Tumors of the FGT	Dr. Cobb

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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

<b>Discipline</b>	<b>Lecture Title</b>	<b>Faculty</b>	
<b>Anatomic Pathology, Continued</b>	New Technologies in GYN Cytology	TBA	
	Fluid Cytology	Drs. Raza & Greaves	
	Respiratory Cytology	Dr. Barr	
	Gastrointestinal Tract (GIT) Cytology	Dr. Greaves	
	FNA Techniques & Ancillary Techniques applied to Cytology	Dr. Martin	
	ThinPrep Techniques	Dr. Martin	
	Cerebral Spinal Fluid (CSF) Cytology	Dr. Greaves	
	Exfoliative and FNA Cytology of Breast	Dr. Naritoku	
	FNA Cytology of Lung, Pleura, and Mediastinum	Dr. Greaves	
	FNA Cytology of Thyroid	Dr. Greaves	
	FNA Cytology of Salivary Glands and Head & Neck	Dr. Cobb	
	FNA Cytology of Liver	Dr. Cobb	
	FNA Cytology of Pancreas	Dr. Cobb	
	Cytology of the Urinary Tract	Dr. Martin	
	FNA Cytology of Adrenal Gland	Dr. Cobb	
	FNA Cytology of Soft Tissue and Bone	Dr. Raza	
	FNA Cytology of Pediatric Lesions	Dr. Raza	
	FNA Cytology of Ovary and Testis	Dr. Barr	
	FNA Cytology of Lymph Nodes	Dr. Soni	
	Quality Assurance/Quality Improvement in the Cytology Laboratory	Dr. Naritoku	
	<b>CIMM</b>	LIS Navigation and Use I	Dr. Anderson
		LIS Navigation and Use II	Dr. Anderson
		Microbiology Lecture Series - Pending	Dr. Keyser
Microbiology Lecture Series		Dr. Wagar	
Protein Electrophoresis 1		Dr. Chan	
Protein Electrophoresis 2		Dr. Chan	
Cardiac Markers 1		Dr. Chan	
Cardiac Markers 2		Dr. Chan	
Instrumentation Review 1		Dr. Chan	
Instrumentation Review 2		Dr. Chan	
Instrumentation Review 3		Dr. Chan	
Autoimmune Disease 1		Dr. Chan	
Autoimmune Disease 2		Dr. Chan	
Toxicology Review 1		Dr. Chan	
Toxicology Review 2		Dr. Chan	
Toxicology Review 3		Dr. Chan	
Amniotic Fluid		Dr. Chan	
Glycemia and Inborn Errors of Carbohydrate Metabolism	Dr. Chan		
Syphilis	Dr. Chan		

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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

<b>Discipline</b>	<b>Lecture Title</b>	<b>Faculty</b>	
<b>CIMM, Continued</b>	GI Tract and Exocrine Pancreatic Disorders (including cystic fibrosis)	Dr. Chan	
	HIV Serology & Antigen Testing	Dr. Chan	
	Board Review series on Molecular Pathology, Reference Ranges, Predictive Values, QCs based on RISE and other exam questions	Dr. Chan	
	Reference Intervals (July 11, 2006)	Dr. Endres	
	Statistics for Clinical Pathology (August 22, 2006)	Dr. Endres	
	Urinalysis (September 12, 2006)	Dr. Keyser	
	Quality Management (October 10, 2006)	Dr. Endres	
	Biological Variation (December 12, 2006)	Dr. Endres	
	Method Selection and Validation	Dr. Endres	
	Immunoassay	Dr. Endres	
	Thyroid 1	Dr. Endres	
	Thyroid 2	Dr. Endres	
	Bone and Mineral 1	Dr. Endres	
	Bone and Mineral 2	Dr. Endres	
	Tumor Markers (November 14, 2006)	Dr. Endres	
	Reproductive Hormones	Dr. Endres	
	Pituitary Hormones	Dr. Endres	
	Tests of the Liver	Dr. Keyser	
	Body fluids (CSF, Synovial, & Serous)	Dr. Keyser	
	Hepatitis	Dr. Keyser	
	Lipids	Dr. Keyser	
	Electrolytes/Acid Base	Dr. Keyser	
	Renal Function	Dr. Keyser	
	Enzymology	Dr. Keyser	
	<b>Hemato- pathology</b>	Approach to Bone Marrow Interpretation	Dr. Naeim
		Classification of Acute Lymphocytic Leukemias	Dr. Naeim
		Classification of Acute Myeloid Leukemias	Dr. Naeim
		Classification of Chronic Myeloproliferative Disorders	Dr. Naeim
		Classification of Myelodysplastic Disorders	Dr. Naeim
		Cytogenetic Abnormalities in Chronic Leukemia	Dr. Naeim
		Cytogenetic Abnormalities in Leukemias	Dr. Naeim
		Cytogenetic Abnormalities in Lymphoma	Dr. Naeim
		Diagnostic Features of Plasmacytic Myeloma	Dr. Naeim
Eyecount and Automated Leukocyte Differential Counts		Dr. Naeim	
Hereditary & Acquired Leukocyte Disorders		Dr. Naeim	
Hereditary & Acquired Platelet Disorders		Dr. Naeim	
Indications for Flow Cytometry in Hematologic Malignancies		Dr. Naeim	
Laboratory Approach to Acquired Bleeding Disorders		Dr. Naeim	

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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

<b>Discipline</b>	<b>Lecture Title</b>	<b>Faculty</b>	
<b>Hemato- pathology, Continued</b>	Laboratory Approach to Hemoglobinopathies	Dr. Naeim	
	Laboratory Approach to Hereditary Bleeding Disorders	Dr. Naeim	
	Laboratory Approach to Hypochromic Anemia	Dr. Naeim	
	Laboratory Approach to Macrocytic Anemia	Dr. Naeim	
	Laboratory Approach to Neutropenia	Dr. Naeim	
	Laboratory Approach to Thrombocytopenia	Dr. Naeim	
	Laboratory Approach to Thrombotic Disorders	Dr. Naeim	
	Molecular Diagnostic Techniques in Hematologic Malignancies	Dr. Naeim	
	Operating Principles of Hematology Analyzers	Dr. Naeim	
	Reticulocyte Counting & Clinical Usage	Dr. Naeim	
	Romanowsky Stained Body Fluid Cells	Dr. Naeim	
	<b>Transfusion Medicine</b>	ABO, Rh and Other Blood Group Antigens – 8/17/05	Dr. Bell
		Antibody Screen, Direct Antiglobulin Test (DAT); Introduction to Antibody ID Using Panels; Compatibility Testing	Dr. Bell
Complex Antibody Identification		Dr. Bell	
Basic Coagulation		Dr. Bell	
Blood Component Therapy/Transfusion Practice –		Dr. Bell	
Transfusion Reactions – Immunologic/Non-immunologic		Dr. Bell	
Blood Donor Selection/Testing/Follow-up Including Recalls/Withdrawals		Dr. Bell	
Prenatal/Neonatal Immunohematology and Transfusion Practice/Rh Immune Globulin Administration		Dr. Bell	
Topics in Coagulation		Dr. Bell	
Regulatory and Accreditation - cGMP, Licensing, Inspection, Reporting Incidents, Highlights from CBBS Meeting		Dr. Bell	
Blood Use Review		Dr. Shulman	
Donor Hemapheresis		Dr. Shulman	
Donor Selection		Dr. Shulman	
Exceptions & Variations of Care in Blood Banking		Dr. Shulman	
Hemolytic Disease of the Newborn		Dr. Nelson	
Neonatal/Pediatric Transfusion Therapy		Dr. Nelson	
Kidd, Kell, Duffy Blood Groups		Dr. Shulman	
Other Blood Groups	Dr. Shulman		
Platelet & HLA Antibody Detection & Identification	Dr. Shulman		

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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

<b>Discipline</b>	<b>Lecture Title</b>	<b>Faculty</b>	
<b>Transfusion Medicine, Continued</b>	Platelet Serology	Dr. Shulman	
	Red Cell Antibody Detection	Dr. Shulman	
	Red Cell Antibody Identification	Dr. Shulman	
	Red Cell Compatibility Testing	Dr. Shulman	
	Regulation/Accreditation of Blood Banks & Transfusion Services	Dr. Shulman	
	Rh Blood Group	Dr. Shulman	
	Rh Immune Globulin	Dr. Nelson	
	Special Blood Donations	Dr. Shulman	
	Therapeutic Hemapheresis	Dr. Shulman	
	Transfusion Reactions (Acute)	Dr. Shulman	
	Transfusion Reactions (Delayed)	Dr. Shulman	
	Transfusion Therapy	Dr. Shulman	
	Donor suitability (2 lectures)	Dr. Haimowitz	
	Risks of Transfusion Infections and Noninfections (2 lectures)	Dr. Haimowitz	
	Managing Post Donation Information Recalls/Market Withdrawals/Lookback/Possible Transfusion Transmitted Infections	Dr. Haimowitz	
	Component Preparation	Dr. Haimowitz	
	Donor Testing	Dr. Haimowitz	
	Donor Injuries and Adverse Reactions	Dr. Haimowitz	
	<b>American Red Cross</b>	HLA Overview	Randy Smith
		Platelet Antibodies Auto and Allo	Dr. Garratty
Mechanisms of Immune RBC Destruction		Dr. Garratty	
Autoimmune Hemolytic Anemia		Dr. Garratty	
Compatibility Testing		Dr. Garratty	
Drug Induced Hemolytic Anemia		Pat Arndt	
Hemolytic Disease of the Fetus and Newborn		Dr. Garratty	
Clinically Significant Antibodies Not Detected by Routine Methods		Dr. Garratty	
Blood Administration		Loni Calhoun	
Problems Associated with Transfusion of Patients with Sickle Cell Disease		Dr. Garratty	
Component Therapy		Dr. Klapper	
Neonatal Transfusions		Jacque Tagliere	
Horizons in Transfusion Medicine		Dr. Herron	
Transfusion Products for the Future (e.g., Stealth Cells)		Dr. Garratty	
Quality Management		Marianne Silva	
In Vitro Reactions Involving RBCs that are Not Due to Blood Group Antibodies		Dr. Garratty	
Infectious Risks of Transfusion		Dr. Haimowitz	

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## Core Curriculum Lectures, Tutorials, Seminars and Conferences, Continued

<b>Discipline</b>	<b>Lecture Title</b>	<b>Faculty</b>
<b>American Red Cross,</b> Continued	Problems with Passive Transfer of Antibody	Dr. Garratty
	Coagulation for Blood Bankers	Dr. Hirose
	Relationship of Blood Groups to Disease: Do Blood Group Antigens Have a Function?	Dr. Garratty
	Managing Post-Donation Information	Dr. Haimowitz
	Non-Infectious Risks of Transfusion	Dr. Haimowitz
	Basic Concepts of Immunology	Dr. Jill Adler-Moore
	Immunoglobulins and Complement	Dr. Garratty
	Factors Affecting Antibody Detection	Dr. Garratty
	Human Genetics: Classical/Blood Group Terminology	Pat Arndt, Gina Leger
	Human Genetics: Molecular	Pat Arndt
	RBC Membrane Structure and Chemistry of Blood Group Antigens	Dr. Garratty
	Do Blood Group Antigens Have A Biological Role?	Dr. Garratty
	ABO, H and Lewis Systems/P and Ii Blood Group Systems	Pat Arndt, Gina Leger
	Use of Chemicals and Potentiators in Antibody Identification	Gina Leger
	Rh Blood Group System Part 1	Gina Leger
	Rh Blood Group System Part 2	Gina Leger
	Kidd, Duffy and Kell Systems	Karen Rodberg
	MNS, Gerbich, and Lutheran Systems	Gina Leger
	Other Blood Groups (Knops, Dombrock, Cartwright)	Debbie Bailey
	Basic Antibody Identification	Gina Leger
	Polyagglutination	Pat Arndt
	Problem Solving Workshop - A Case Study Approach	Debbie Bailey/ Penny Hunt
	Working in A Tubeless Blood Bank	Karen Rodberg
	Hemolytic Transfusion Reactions	Dr. Garratty
	What Do You Do When All Units Are Incompatible?	Dr. Garratty
	Interpreting The Results of a Positive Direct Antiglobulin Test	Dr. Garratty
	Special All-Day Symposium at California State University, Pomona	
Update on HIV/AIDS	Dr. Worthen	
Hematopoietic Cell Transplantation – New Concepts and New Techniques	Dr. Petz	
<b>Laboratory Management</b> <b>Medical Ethics</b> <b>and Medicolegal</b> <b>Issues</b>	Los Angeles Laboratory Management Series	See below
	Medicare Compliance	Dr. Naritoku
	Medicolegal Issues - Series	Dr. Naritoku

## Neuropathology Teaching Conferences

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### Introduction

Autopsy residents must attend all gross (brain cutting) and the microscopic conferences. If residents are performing autopsies, they should be free to attend the conference after 3:00 p.m.

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### Gross Neuropathology (brain cutting)

- Monday p.m.
  - Residents are usually assigned the case on which they have performed the general autopsy, or have seen the patients clinically.
  - Residents will be assigned cases with positive neurologic histories when possible.
  - Instruction in brain examination and dissection methods will be provided.
- 

### Microscopic Conference (all residents)

- Tuesday or Thursday p.m.
  - Residents will each be assigned the following responsibilities in the rotation:
  - Review of unknowns. An answer sheet is provided for diagnosis.
  - Monthly neuroanatomy review.
  - Monthly "Show and Tell" conferences. Review of photos is included. Residents will present a completed case of special interest.
- 

### Surgical Neuropathology

- Thursday p.m. - Case review, with MRI, CAT scans, clinical history, immunostains.
  - Norris Hospital Tumor Review - 12:00 noon, Fridays.
  - University Hospital Neuropathology Tumor Review Conference - Wednesday p.m.
- 

### Forensic Neuropathology Conference

- Friday a.m.
  - Gross forensic neuropathology – brain cutting
  - Microscopic neuropathology – microscopic slide review
- 

### Neuro-degenerative Diseases

- Wednesday p.m.
  - Gross and microscopic review
  - Application of special stains
- 

### Pediatric Neuropathology

- Tuesday p.m. or Thursday p.m. ; Children's Hospital of Los Angeles
  - Clinicopathological correlation; surgical pathology
  - Genetic diseases, neuroanatomy
- 

### Review of Neuropathology

- Friday a.m.; (second Friday of each month) August – April
  - Neuroanatomy/neurohistology, pediatric/developmental, degenerative/demyelinating, tumor, vascular; infection, forensic; and review quiz.
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## Anatomic Pathology

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### Introduction

There is an extensive series of lectures provided to the cytopathology residents covering all aspects of cytopathology. These include daily lectures during the Core Curriculum (see above) a lecture series during the Ancillary Techniques Curriculum, including lecture series in molecular pathology, flow cytometry, immunohistochemistry and image analysis (see above), and a lecture series in the Management, Administration and Quality Assurance Curriculum. Pathology Grand Rounds (held weekly), Cancer Center Grand Rounds (held weekly), and many of the daily morning didactic sessions follow a lecture format as well.

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### Tutorials

For cytopathology, the residents and fellows are encouraged to attend local and regional tutorials and workshops held by regional societies that may be applicable to all disciplines in Anatomic Pathology.

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### Seminars

The Cytopathology Journal Club, which is held monthly, which encourages questions discussion of the journal article reviewed. The Neuropathology Journal Club also is held on a monthly basis. A monthly journal club directed at the general AP/CP Residency Training Program meets on a monthly basis.

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### Conferences

A large number of clinical and teaching conferences are held regularly on the Health Sciences Campus. The majority of these conferences take place at the LAC+USC Healthcare Network. Many are held at the USC/Norris Comprehensive Cancer Center, the USC University Hospital, and the Doheny. These include:

<b>Name of Conference</b>	<b>Frequency</b>
Atypical/Malignant Cytology Conference	Daily (except Thursdays)
GYN Cyto/Histo Correlation Conference	Weekly (each Thursday)
FNA/Non-GYN Conference	Weekly
Surgical Neuropathology microscopic review	Weekly
FNA/Surgical Pathology Conference	Bimonthly
Dermatopathology microscopic review	Weekly
Oral Pathology microscopic review	Biweekly
Liver Pathology microscopic review	Weekly
Neuropathology Journal Club	Bimonthly
FNA/Surgical Pathology Conference	Bimonthly
Norris Pathology Conference (CME Accredited)	Bimonthly
FNA/Hematopathology Conference	Monthly

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## Anatomic Pathology, Continued

### Conferences, Continued

<b>Name of Conference</b>	<b>Frequency</b>
Cytopathology Journal Club (CME Accredited)	Monthly
Teaching Conferences for residents	Monthly
General Residency Journal Club	Monthly
Teleconferences for Cytopathology	Quarterly

Two conferences are General Pathology Conferences but regularly include topics in cytopathology, laboratory management, administration, quality assurance, and other topics relevant to the study and diagnosis of disease. These include:

<b>Name of Conference</b>	<b>Frequency</b>
Pathology Resident Conference	Daily
Pathology Grand Rounds	Monthly

In addition there are a number of interdepartmental conferences at which pathology cases are presented and discussed. These include:

<b>Name of Conference</b>	<b>Frequency</b>
LAC+USC Breast Center Tumor Board	Weekly
Norris Breast Center Conference	Weekly
USC Liver Conference	Weekly
Lymphoma Conference	Weekly
General Tumor Board	Weekly
Tumor and Endocrine Surgery microscopic review	Weekly
Gastrointestinal Pathology microscopic review	Weekly
ENT Tumor Board	Bi-weekly
Gynecologic Pathology microscopic review	Four times weekly
Gynecologic Oncology microscopic review	Weekly
Hepatology Grand Rounds	As needed
Hepatology microscopic review	Weekly
Non-Trauma Surgery Conference	As needed
Burn Service Morbidity and Mortality Conference	As needed
Surgery Morbidity and Mortality Rounds	As needed
Gastrointestinal Grand Rounds	As needed
Colorectal Surgery Tumor Board	As needed

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## Anatomic Pathology, Continued

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### Conferences, Continued

All of these conferences, with the exception of the teleconferences and the teaching conferences given by faculty and staff are organized, prepared, and in some cases presented by the residents and fellows

The four different cytologic/histologic correlation conferences are directed by a cytopathology faculty member at the 12 headed microscope. Faculty, fellows, and Residents take turns in a “round-robin” fashion, discussing the cytologic findings as well as the histologic findings in each case as an unknown prior to the fellow who has organized the conference providing the signout diagnosis.

The fellows each present at least one Cytopathology Journal Club and also give teaching conferences in the cytopathology division and the Department of Pathology morning didactic sessions. The residents each present at least one of the General Residency Journal Club.

With regard to the interdepartmental conferences, the cytopathology fellows are responsible for presenting the cytopathology cases selected by the clinical staff. These conferences can be at the multiheaded microscope but more commonly involve projection of kodachrome slides under the supervision of a cytopathology faculty member.

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### Quality Assurance Curriculum

Knowledge of and experience in the quality assurance aspects of a cytopathology laboratory are acquired through both didactic sessions and the direct involvement of the residents.

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### Didactic Sessions

There are a variety of didactic sessions dedicated specifically to management, administration, and quality assurance issues. The fellows and general pathology residents attend an excellent course directed by Dr. Richard E. Horowitz, a Governor of the College of American Pathologists, entitled “Laboratory Management for Pathology Residents “ which is given on alternate years at monthly evening sessions lasting from 1.5-3 hours.

Dr. Horowitz has also given residents a preview of what the future holds for those going into community practice pathology, including quality assurance, a well-received series of lectures entitled, “Real World Pathology.” This series of lectures informs residents on the expectations of the new pathologist once they are hired in community practice positions. Dr. Horowitz continues to give these lectures at the VAGLAHS morning conferences.

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## Anatomic Pathology, Continued

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### **Didactic Sessions, Continued**

Topics covered include management principles, interfaces, laboratory operations, personnel management, equipment and supply management, quality assurance and safety, financial management, contracting and negotiating, collaborative strategies, marketing and public relations, research and education informatics, health care organizations, and standards and regulations.

This course is required for the credentialing of residents and fellows in lab management. During the morning conference, Dr. Naritoku gives a lecture on QAVI in Anatomic Pathology as a part of a “credentialing” lecture. Dr. Ira Shulman lectures on the “FOCUS PDCA” process, which is a multidisciplinary approach to improving work process.

In addition, lectures are given during the Core Curriculum by full-time and volunteer cytopathology faculty. Further, the daily pathology morning conferences and Grand Rounds given by the pathology faculty and residents frequently address topics in laboratory management, administration, and quality assurance.

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### **Direct Involvement: Autopsy**

The residents in autopsy actively participate in the quality assurance aspects of autopsy:

- Presenting the autopsy findings at Morbidity and Mortality Conferences, such as for Burn Surgery, Trauma Service and Internal Medicine at LAC and at the VAGLAHS
  - Feedback to the Anatomic Pathology Quality Improvement Manager when there are discrepancies with regard to the clinical cause of death and the autopsy cause of death
  - Neuropathology Journal Club: Friday 1:00 p.m. monthly, Room 345 McKibben Annex: Medical School. Residents welcome. Papers for review available the preceding Monday, Room 345 at McKibben Annex.
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## Anatomic Pathology, Continued

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### **Direct Involvement: Surgical Pathology**

The residents and fellows in surgical pathology actively participate in many aspects of quality assurance:

- Participation in the multiple patient care/tumor board conferences above
  - Clocking in and out frozen sections (CAP regulation)
  - Monitoring the frozen section correlation (CAP regulation)
  - Monitoring the pathology tissue review with regard to preoperative diagnosis and actual pathologic diagnosis (JCAHO regulation)
  - Involvement in peer review conferences
  - Participation in the CAP PIP proficiency testing program – at the VAGLAHS, residents take a major role in researching these cases and presenting them to staff
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### **Los Angeles Management for Pathology Residents**

The pathology residency training programs at USC, UCLA, Cedars-Sinai Medical Centers conduct a joint seminar in “Management for Pathology Residents.” This seminar was conducted on an every other year basis; however, this year it is being conducted every other months over two years. Residents from the three programs, in addition to the residents from Harbor-UCLA Medical Center, West-Los Angeles Veterans’ Administration and UCI Medical Center are invited to attend these seminars. This series is documented on videotape for future use in residency training and education in Laboratory Management and Administration. These lectures included:

- Management Principles: Planning and Leadership – Dr. Horowitz
  - Interface – Dr. Horowitz
  - Personnel Management – Ms. Sharpe
  - Laboratory Operations Equipment, Supplies, Safety – Drs. Horowitz and Hilborne
  - Quality Assurance, Performance Measurements, Regulations – Drs. Wager and Naritoku
  - Financial Management of the Laboratory – Dr. Hausner
  - Negotiating Pathology Contracts – Dr. Bierig
  - Managed Care Contracting – Dr. Chapman
  - Financial Management of the Pathology Group – Dr. Horowitz
  - Legal Issues, Risk Management and Medical Errors – Dr. Mills
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### **Real World Pathology**

Providing residents a preview of what is expected of the newly graduated pathologist in community practice, Dr. Richard Horowitz has developed the following lecture series for residents:

- Introduction – The Successful Community Hospital Pathologist
  - Intra-operative Consultation
  - Surgical Pathology
  - Autopsy
  - Clinical Pathology
  - The Pathology Group
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## Anatomic Pathology, Continued

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### Real World Pathology, Continued

- Medical Staff Relations
  - Hospital Relations
  - Beyond the Hospital
  - Summary
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### Direct Involvement: Cytopathology

The residents in cytopathology actively participate in the quality assurance aspects of the cytopathology laboratory. Residents are directly responsible for organizing, attending, and participating in the weekly gynecologic cyto-histo correlation conferences, FNA/non-gynecologic cyto-histo correlation conferences, and the FNA peer review conferences. The participation in these quality assurance activities is documented in the residents evaluation forms.

Proficiency testing activities are an important aspect of quality assurance and include active participation of the fellows and residents in the College of American Pathologists PAP unknown slide review (1993 to present) as well as their participation in the MIME (formerly known as CEIC) non-gynecologic cytology unknown slide review (1995 to present).

In summary the quality assurance activities in cytopathology involving the residents include:

- Monthly Cytopathology Unit Meeting
- External and internal CAP inspections
- Weekly gynecologic cytology/histology correlation conference
- Weekly FNA peer review conference
- Weekly second review of negative and unsatisfactory non-gynecologic cytology cases
- Bi-monthly non-gynecologic cytology/surgical pathology correlation conference
- Monthly cytopathology/hematopathology correlation conference
- Monthly Cytopathology Journal Club
- Investigation of statements of concern
- Studies to evaluate test methodologies

Quality indicators for the cytopathology laboratory which involve the residents include:

- False positive and false negative gynecologic cytology cases
  - Follow-up of abnormal gynecologic cytopathology cases
  - Accuracy and completeness of final cytopathology reports
  - Proficiency testing in both gynecologic and non-gynecologic cytopathology
  - Number of amended reports
  - Incident reports/customer complaints/interdepartmental communications
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## Anatomic Pathology, Continued

### Study Materials

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#### Teaching Materials Accrued at LAC+USC and USC/Norris

Our own teaching materials accrued at the LAC+USC Medical Center and the USC/Norris Cancer Hospital include an extensive collection of study set cases in both exfoliative and FNA Cytopathology with 3000 cases organized into 25 different study sets covering all body sites.

Of these, 1000 are gynecologic exfoliative cytology, 800 are non-gynecologic exfoliative cytology and 1200 are FNAs. In addition there is a collection of 35 slide quizzes with 15-30 slides each and 343 unknown slides (141 gynecologic pap smears and 202 non-gynecologic cytologies).

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#### Other Teaching Materials

In addition to our own collections of cases, we have:

- 30 Tutorials in Cytopathology from the International Academy of Cytology
  - 20 Teleconferences
  - ASCP Check Samples from 1985-1999
  - CAP Check Path from 1992-1999
  - 13 videos/films in Cytopathology
  - The fellows and residents in the program have participated in the College of American Pathologists Pap smear unknown proficiency testing (1993 to present), but these materials are returned to the CAP.
  - They have also participated in the MIME (formerly CEIC) nongynecologic cytology proficiency testing program (1995 to present), and kodachromes of these cases are kept for review.
  - Numerous study sets for surgical pathology collected from past cases
  - Study sets from past California Tissue Tumor Registry
  - Study sets from past ASCP Spring and Fall Slide Seminars
  - Normal histology set from past autopsies
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#### Review Self Teaching Sets

The following Kodachrome and glass slide sets are to be reviewed on the service. These may be reviewed according to the conference topic of the week. All kodachrome sets must be reviewed.

- CD-ROMs: Gross brain dissection; neurohistology, CSF cytology
  - Neuropathology carousels (9 sets)
    - neuroanatomy (adult, fetal)
    - neurohistology
    - trauma
    - development
    - degenerative, toxic, metabolic and demyelinating diseases
    - vascular
    - tumor
    - infectious disease
    - muscle diseases
  - Glass slide review (11 sets)
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## Anatomic Pathology, Continued

### Study Materials

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#### Review Self Teaching Sets

- Surgical Pathology study sets are being made in an ongoing fashion, one kept at LAC+USC Medical Center in the General Hospital, the other at the VAGLAHS. Residents at the VA are now developing their own study sets of interesting cases. Dr. Nancy Klipfel is in charge of creating study sets and reviewing them with residents.
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#### Computer-Based Educational Materials

- Intellipath computer videodiscs of Cytopathology of breast, lung, lymph node, and thyroid
- Check Sample Stack-Cytopathology Stack
- Cytotest I and II
- Internet: Johns Hopkins University, Utah, and CTTR websites
- [www.chandrasoma.com](http://www.chandrasoma.com) - Residents are encouraged to frequently visit this website which has interesting cases from the General Hospital.

For neuropathology:

- List is available on service and includes specific websites
  - Reading assignment from authors: Fuller, GN and Goodman, JC Practical Review of Neuropathology. Lippicott/Williams and Wilkens, 2001.
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#### Library Facilities Readily Available to the Residents

- The Medical Library in General Hospital is on the second floor of GH (hours are Monday thru Friday (only) from 8:30 a.m. to 7:00 p.m., GH Room 2050, (323) 226-7006)
- The Women's and Children's Hospital Medical Library hours are Monday thru Friday (only) from 8:30 a.m. to 5:00 p.m., WCH Room 3L3, (323) 226-3234.
- Norris Medical Library located adjacent to the USC/Norris Comprehensive Cancer Center and Hospital (hours are variable; check website: [www.usc.edu/hsc/nml/lis/g-hours.html](http://www.usc.edu/hsc/nml/lis/g-hours.html))
- Pathology Resident's Library, General Hospital, Room 16-400 (resident access to this library is 24/7/365)
- Libraries are present at each rotation site, relevant to the subject of the rotation. Books must not be removed from these areas.

Both the LAC+USC Medical Center Medical Library and the Norris Medical Library offer Medline access. Residents also have internet access at several locations at or near their work areas while on rotations.

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