Danbury Hospital
Department of Pathology and Laboratory Medicine

Suggested Schedule and Checklist for Pathology Resident Rotation in Clinical Chemistry Laboratory

Month #1	**Workstation/Area**	**Tests/Activities to Observe**	**Activities to Complete**	**Resident/Attend. Initials/Date**
Week #1	Specimen Receiving and Processing (1/2 week) Begin VITROS Chemistry Analyzers (see below)	Processing blood and urine samples Send-out tests (ordering/resulting) Tube system See Week #2	Read procedure manuals Review applicable material in chemistry textbook Complete learning objectives	
Week #2	VITROS Chemistry Analyzers (cont'd)	General chemistry tests: electrolytes, BUN, creat, gluc, Ca, Mg, phos, protein, albumin, uric, lactate, NH_3, bilirubin, ALP, ALT, AST, GGT, CK, LD, amylase, lipase, cholesterol, HDL, trig, Fe/TIBC, urine chemistries, CSF glucose/protein. Therapeutic drugs: Li, digoxin, theophylline, phenytoin, carbamazepine Serum tox: EtOH, salicylate, acetaminophen	Read procedure manuals Review applicable material in chemistry textbook Complete learning activities	
Week #3	Radiometer ABL-725 Radiometer ICA2	pH/ blood gases/oximetry (COHb, MetHb)	Read procedure manuals	

	Fiske Osmometer Manual Tests	electrolytes, ionized calcium Ionized calcium Osmolality (serum/urine) Ketones, pregnancy, cryoglobulins	applicable material in chemistry textbook Complete learning activities	
Week #4	Abbott TDx Cobas MIRA Syva Rapid Test (Urine Drugs)	Therapeutic drugs: phenobarbital, valproic acid, gentamicin, vancomycin Therapeutic drugs: cyclosporine Urine toxicology: amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine metab, opiates, PCP, tricyclics	Read procedure manuals Review applicable material in chemistry textbook Complete learning activities	

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Month #2	**Workstation/Area**	**Tests/Activities to Observe**	**Activities to Complete**	**Resident/Attend. Initials/Date**
Week #1	Roche ELECSYS Immunoasay Analyzer Abbott IMx Analyzer	Cardiac markers: CK-MB, troponin T Endocrine: PTH, free T_3, estradiol, hCG, anti-TPO (pending) Tumor markers: PSA, free PSA, CA-125	Read procedure manuals, view CD-ROM (Elecsys) Review applicable material in chemistry textbook	

		CEA, homocysteine	Complete learning activities	
Week #2	Beckman ACCESS Immunoassay Analyzers	Thyroid: TSH, FT_4, T_3 Anemia: ferritin, B12, folate Misc. endo: cortisol Reproductive endo: LH, FSH, prolactin, progesterone	Read procedure manuals Review applicable material in chemistry textbook Complete learning activities	
Week #3	Miscellaneous techniques: Protein Electrophoresis Blood Lead Analyzer Wescor SweatCheck, Labconco Chloridometer Ansys TLC System	SPEP/UPEP Blood lead Sweat collection, chloride/conductivity measurement Urine cocaine and THC confirmation	Read procedure manuals Review applicable material in chemistry textbook Complete learning activities	
Week #4	Quality control, proficiency testing, assay validation	Review of monthly QC data, proficiency testing reports	Read procedure manuals Review applicable material in chemistry textbook Review monthly QC with director Review PT with director	

Month #3	Workstation/Area	Tests/Activities to Observe	Activities to Complete	Resident/Attend. Initials/Date
Week #1	Quality Control (intra-lab and inter-lab).	Review QC procedures. Observe daily QC performance, documentation by technologists; weekly QC review by TS, how TS prepares monthly QC summary.	Review all inter-lab QC reports Review monthly QC summary book with section director.	
Week #2	Proficiency Testing	Review PT procedure. Observe how PT samples are processed and tested, how test results are recorded and reported by Technical Specialist.	Review all incoming PT reports. Quality Assurance, Performance Improvement	
Week #3	Quality Assurance, Performance Improvement	Review previous month's QA/PI report. Observe how data is collected for PI monitors and how report is prepared.	Assist in preparing report for monthly QA/PI meeting. Review CAP Q-Tracks reports. Attend monthly PI meeting.	
Week #4	Test Utilization	Read laboratory policies on test utilization review. Review list of tests with stat availability, TAT, limit on # of orders per admission.	Review requests for esoteric and send-out tests on inpatients; contact clinicians as required. Follow-up with clinicians on unusual requests.	
Weeks # 1-4	Critical Results/Interesting Cases Management	Review laboratory's critical value policy and procedure. Review list of chemistry critical values.	Follow-up on e-mail notification of critical results; contact clini-cian, review chart as indicated. Attend Dept of Medicine morning report. Present interesting cases to other	

			Attend monthly chem section meeting, weekly directors meeting.	