Washington State Department of Health

ELABORATIONS

News and Issues for Washington's Clinical Laboratories

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Protime/INR Testing Practices Survey

by Kathy LaBeau, MT (ASCP)
DOH Laboratory Quality Assurance

Do you perform protime/INR testing? If so, I want to hear from you!

As part of a cooperative agreement research project with the Centers for Disease Control and Prevention (CDC), I have developed a questionnaire to gather information about clinical laboratory testing practices for protime/INR testing.

Laboratory testing used to monitor patients on oral anticoagulation therapy is an important topic from the standpoint of **patient safety.**

- Testing is **vulnerable to errors** that can directly lead to **adverse patient outcomes.**
- Testing is delivered through a **fragmented system of healthcare**, which includes hospitals, anticoagulation clinics, physician offices, home health, and patient self-testing.
- **Interpreting test results from different settings can be problematic** due to different instruments, reagents, specimen types, testing personnel and quality assurance practices. In addition, protime/INR testing is now common in waived test sites where CLIA-waived test devices are used.

On January 26, a questionnaire was mailed to all medical test sites that perform protime/INR testing. If you received this questionnaire, I encourage you to fill it out and mail it back as soon as possible so you can be included in this study. If you did not receive a questionnaire but perform protime/INR testing, please call for a form and one will be mailed to you.

We want responses from **anywhere** this testing is performed (including physician offices, clinics, home health settings, nursing homes, etc.) and from sites using **any test method** or device (including point of care and CLIA-waived test devices, such as the Roche CoaguChek, ITC Microcoagulation System, etc.).

It takes about **20 minutes** to fill out the form. All information you provide will remain strictly **confidential**. If you complete a questionnaire, a **final report of the findings will be shared with you**, allowing you to compare your practices with other clinical settings like your own.

If you need a questionnaire form mailed to you or need assistance in completing the form, please call Kathy LaBeau at (206) 361-2828.

Since 1994, I have worked successfully with CDC on similar data-gathering activities. The studies have provided valuable information about testing quality, accuracy, reliability and accessibility, based on actual laboratory practices from a wide variety of testing settings. The reports of the previous studies can be found at: www.phppo.cdc.gov/mlp/pnlmsmn.asp.

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Practice Guidelines

The following practice guidelines have been developed by the Clinical Laboratory Advisory Council. They can be accessed at the following website:
www.doh.wa.gov/lqa.htm

Anemia	Lipid Screening
ANA	Point-of-Care Testing
Bioterrorism Event Mgmt	PSA
Bleeding Disorders	Red Cell Transfusion
Chlamydia	Renal Disease
Diabetes	STD
Group A Strep Pharyngitis	Thyroid
Hepatitis	Tuberculosis
HIV	Urinalysis
Intestinal Parasites	Wellness

2003 Laboratory Personnel Shortage Survey

by Leonard Kargacin, MA, CLS(NCA)
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In October 1999, the Clinical Laboratory Advisory Council (CLAC) formed a workgroup to study the issue of clinical laboratory personnel shortages in Washington. The workgroup is made up of the directors of the various clinical laboratory training programs in Washington, the presidents of the Washington state chapters of the laboratory professional organizations, and representatives from the Advisory Council.

In 1999, the Personnel Shortage Workgroup conducted a survey of 194 laboratory managers in hospitals, independent laboratories, and clinics. This survey established baseline numbers against which data from future surveys could be compared for ongoing monitoring of the clinical laboratory personnel shortage in Washington state. The results of this survey (response rate = 43%) were published in the June 2000 issue of Elaborations.

In the winter of 2003, a second survey was sent to 204 laboratory managers in hospitals, independent laboratories, and clinics. Of the 204 surveys mailed, 108 responses were received for a response rate of 53%. This article reviews the significant findings from the 2003 survey. For the questions for which there was comparison data from the 1999 survey, the results from both surveys are listed. For other questions where there was no comparison data available, only the results from the 2003 survey are listed.

The following should be noted:

- There was only limited response from the laboratories surveyed for the categories of Cytotechnologist, Histotechnologist, and Histotechnician. Since the response was so small, the information about these personnel categories is not included in this report.
- In the 1999 survey, the categories of Lab Assistant and Phlebotomist were not specifically listed as types of personnel for which information was requested. Information about these two categories reflects data from the facilities that wrote in the categories and provided the requested statistical information. Therefore, the numbers of respondents are lower than those from the 2003 survey where these categories were specifically listed.
- Abbreviations: **CLS/MT** = Clinical Laboratory Scientist/Medical Technologist; **CLT/MLT** = Clinical Laboratory Technician/Medical Laboratory Technician

Average Vacancy Rate: The current average vacancy rate is the topic that is on everyone's mind. The vacancy rate for each job classification in each laboratory was calculated by dividing the number of vacant FTEs for a particular job classification by the number of FTEs when fully staffed for that same classification. The results for all facilities were then averaged. The results are:

Category	Average Vacancy Rate	
	1999	2003
CLS/MT	3.7	5.1
CLT/MLT	8.9	4.6
Lab Assistant/Phlebotomist	12.0	1.6/2.5

The vacancy rate for CLS/MT is somewhat higher in 2003 than in 1999 and the vacancy rate for CLT/MLT is lower. This may be a reflection on the greater number of students graduating from the CLT/MLT programs in Washington.

The Washington State Hospital Association and the WWAMI Center for Health Workforce Studies conducted a hospital staffing survey in 2002. Of the 85 surveys mailed to Washington hospitals, 71 completed the survey

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for a response rate of 83.5%. The vacancy rate in that survey for hospital-based laboratories for CLS/MT is 4.7% and for CLT/MLT is 4.4%. That data corroborates the findings from the 2003 CLAC survey.

The American Society of Clinical Pathologists (ASCP) Board of Registry (BOR) performed a similar study nationally in 1998 and 2002. The vacancy rates found in that study were: CLS/MT 10.2% (1998) and 7.0% (2002); CLT/MLT 11.1% (1998) and 8.6% (2002). Comparing the data from the Washington study with the BOR data shows our rates to be considerably lower.

2003 Average Turnover Rate (data was not available for 1999): The average turnover rate has an impact on the number of vacant positions in the laboratory. The average turnover rate for each job classification in each laboratory was calculated by dividing the number of people who left employment during the most recent twelve month period in each category by the number of people employed in that category when fully staffed. The results for all facilities were then averaged. The results are:

Category	Average Turnover Rate (%)
CLS/MT	15.4
CLT/MLT	7.5
Lab Assistant	14.9
Phlebotomist	28.8

Why positions are vacant: For the CLS/MT position, the primary reasons given for current vacancies in descending order were: terminated, retired, moved, left for better pay, and left for better hours. For the CLT/MLT position, the primary reasons given for current vacancies in descending order were: moved, left for better hours, left for better pay, and terminated. For Lab Assistant/Phlebotomist positions, the primary reasons given for current vacancies in descending order were: terminated, moved, left for better pay, and left for better hours.

Length of time to fill vacant positions: Of the laboratories that responded to this question, the majority indicated that it took longer than four months to fill positions (55.3% in 2003 compared with 28.3% in 1999) to fill the vacant CLS/MT positions. For the CLT/MLT category, the time needed to fill positions was more evenly split between 1-3 months (31.6%) and > 6 months (34.2%) in 2003, whereas in 1999, the majority of CLT/MLT vacant positions were filled within 1-3 months (72.8%). The main reason given for why positions have remained vacant for more than one month continues to be “insufficient applicant pool”.

Strategies to cover the vacant positions: In 1999, the majority of laboratories responded that they “required overtime of current personnel” to cover vacant positions until new personnel were hired (47.3% for CLS/MT and 59.3% for CLT/MLT). In the 2003 survey, mandatory or voluntary overtime still ranked high (32.9% for CLS/MT and 28.8% for CLT/MLT). “Employing more part-time workers” (CLS/MT = 12.7% in 1999 and 29.1% in 2003; CLT/MLT = 2.4% in 1999 and 39.0% in 2003) and “employing temp agency workers” (CLS/MT = 14.5% in 1999 and 15.2% in 2003; CLT/MLT = 7.4% in 1999 and 13.6% in 2003) increased in popularity.

Are laboratories cross-training existing personnel to adequately staff during times when vacant positions exist? The majority of facilities (76.6% in 1999 and 64.8% in 2003) found it necessary to cross-train personnel to adequately staff their laboratories when vacant positions exist. Many respondents indicated that they only hire generalists so that personnel are already cross-trained when they are employed.

Are facilities offering incentives to recruit and/or retain staff?
The information below summarizes those benefits that respondents indicated were added to retain current employees and/or recruit new personnel. It is important to note that some respondents listed benefits they already provide while others included only the new benefits added as inducements. It is interesting to note that most benefits other than sign-on bonus, stay-put bonus, or relocation expenses were provided to technical **and** non-technical personnel as incentives for both recruitment and retention.

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New/Enhanced Benefits	Recruitment	Retention	Category of personnel to which benefit is offered
Better benefits than offered previously	Y	Y	Technical and non-technical
Better benefit packages than other employers in the area	Y	Y	Technical and non-technical
Child care on-site	Y	Y	Technical and non-technical
Expanded career ladder	Y	Y	Technical and non-technical
Flexible hours	Y	Y	Technical and non-technical
Higher salaries than other employers in the area	Y	Y	Technical and non-technical
Opportunity for promotion and/or salary increase	Y	Y	Technical and non-technical
Parking reimbursed	Y	Y	Technical and non-technical
Sign-on bonus	Y	—	Technical
Stay-put bonus	—	Y	Technical
Relocation expenses	Y	—	Technical

Survey questions regarding salaries:

- The majority of laboratories believed their wages to be competitive for their geographical area (64.7% in 1999 and 71.6% in 2003).
- The majority of laboratories (64.9%) in 2003, found it necessary to increase wages to remain competitive. This question was not asked in the 1999 survey so comparison information is not available.

Do you have a tuition reimbursement program for staff who want to be further trained in CLS/MT or CLT/MLT programs? Roughly the same percentage of facilities offered a tuition reimbursement program for staff who want to be further trained in a CLS/MT or CLT/MLT program (37.3% in 1999 and 38.8% in 2003). It is interesting to note that several respondents said that even though their facility's tuition reimbursement program was available to the laboratory, it was only being utilized by nursing.

Are the educational programs in Washington producing enough CLS/MT or CLT/MLT graduates and are they being adequately trained? The majority of laboratories (54.3% in 1999 and 64.4% in 2003) felt that the educational programs in Washington are NOT producing enough CLS/MT or CLT/MLT graduates. The majority of respondents indicated that the CLS/MT (79.0% in 1999 and 66.3% in 2003) and CLT/MLT (59.0% in 1999 and 62.1% in 2003) students are being adequately trained.

What are your suggestions for preventing significant clinical laboratory personnel shortages in Washington? The suggestions received from respondents were concentrated in three major areas: Wages and Benefits; Education and Training; and Recruitment into the Profession.

Wages and Benefits

- Make wages more competitive with nursing. Current wages do not reflect degree of education.
- The pay is not adequate for the responsibility.
- Higher wages across the board will attract and retain quality employees.
- Unless wages can become more competitive with other 4/5 year degree health fields, the shortages will continue. Students are more likely to go into fields with shorter education requirements, that still get rewards (i.e. dental hygiene).
- Better benefits.
- Better working conditions.

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Education and Training

- Provide internships for people with general chemistry/biology degrees.
- Bring back HT and HLT training programs in Washington. Increase the number of CLS/MT students from the UW.
- Develop more training opportunities at community colleges with evening classes to enable lab assistants to become MLTs.
- Provide funding assistance for CLS/MT and CLT/MLT students.
- Expand the capacity of the current CLS/MT and CLT/MLT programs.
- Increase the number of CLS/MT and CLT/MLT programs.
- More schools and scholarship programs are needed, especially in Histotechnology and Cytotechnology.

Recruitment into the Profession

- Encourage job fairs to emphasize the health care professions.
- Increase recruiting of high school and college students.
- Continue recruitment efforts.
- Have more exposure at the high school, junior college, and undergraduate levels on what laboratory testing is and does and about existing vacancies.
- Have hospitals start a program that gives laboratory career information to all area schools.
- Have more articles on the tech shortage.

Miscellaneous

- State licensure would increase professional recognition.
- Higher visibility would garner more respect for the occupation.
- Market the profession.
- Promote a laboratory assistant program.

Summary of other comments on the challenges of finding qualified personnel

- Greatest difficulty is finding experienced microbiologists.
- It would be great if the CLAC offered a list of colleges in the Pacific Northwest that had CLS/MT and CLT/MLT programs so we could actively recruit their graduates.
- The challenge we had was finding someone willing to work the evening and weekend hours, not finding someone qualified to do the work.
- Training programs should dedicate more hours to instrumentation.
- Have a central repository for employers and employees.
- CLS/MTs who do interview are not flexible and demand the best schedules.
- It is hard to find people who want to work in rural areas!
- Administrative interference by a non-professional laboratory manager.
- A hospital that needs to cover “on call” hours has a real challenge to find competent CLS/MTs or CLT/MLTs who can work independently and do not mind taking call.
- Worry about burnout of current staff.
- Medicare reimbursement and all of the paperwork takes all of the joy out of the job, e.g. ABNs.
- The hospital does not consider the lab staff that important!
- The applications I do receive when advertising tend to be from less qualified individuals than in the past. It’s very difficult to find good people.

Compared with national statistics, the clinical laboratory personnel shortage does not appear to be as bad as in some areas of the country. However, that is not to say that we do not have a problem in Washington. As the median age of CLS/MTs increases, retirement from the profession will become a bigger issue. We need to be vigilant and use all available opportunities to promote the profession. We need to continue a multidimensional approach to the problem (staff retention, promotion of the profession, and support of the current educational programs). Laboratories should check with their local Workforce Development Councils to make them aware of the shortage and offer assistance as requested. It is critical that we all continue to work together. We all have a stake in making sure that the laboratory personnel shortage is addressed since many of us are reaching the age where we will have a greater need for laboratory services as a consumer!

Helpful Hints

Interpretive Guidelines for CLIA Regulations

Interpretive guidelines for the final CLIA regulations, published on January 24, 2003, are now available on the Centers for Medicare & Medicaid Services (CMS) website: http://www.cms.gov/clia/appendc.asp.

The final CLIA rule provides one set of QC standards that applies to both moderate and high complexity (nonwaived) testing.

What does this mean for medical test sites (laboratories) in Washington? Medical test sites in Washington are still regulated under the state Medical Test Site (MTS) Rules. The Office of Laboratory Quality Assurance is in the process of reviewing the final CLIA rule to assess what changes will be made in the MTS rules to remain in compliance with CLIA. You will be notified when the assessment is completed and the necessary changes are adopted through the state rule process.

For laboratories that are inspected/accredited by an approved accrediting organization, the requirements of the accrediting organization still apply.

Calendar of Events

PHL Training Classes:
(http://www.doh.wa.gov/EHSPHL/PHL/train.htm)

Basic Microscopy

February 11	Shoreline
February 12	Shoreline

Bioterrorism Sentinel (Level A) Lab Training

February 25	Shoreline

WSSCLS/NWSSAMT Spring Meeting
(http://www.wsscls.org)

April 29-May 1	Vancouver

Northwest Medical Laboratory Symposium

October 20-23	Portland

11th Annual Clinical Laboratory Conference

November 8	Seattle

Contact information for the events listed above can be found on page 2. The Calendar of Events is a list of upcoming conferences, deadlines, and other dates of interest to the clinical laboratory community. If you have events that you would like to have included, please mail them to ELABORATIONS at the address on page 2. Information must be received at least one month before the scheduled event. The editor reserves the right to make final decisions on inclusion.

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