

Extracts from the Lab

A New Hampshire Public Health Laboratories Publication



Summer 2013

Volume 6, Issue 2

Quality in a POD

Jill Power, MS, M(ASCP), CMQ/OE(ASQ), Quality Manager

In May 2012, the New Hampshire Department of Health and Human Services, in conjunction with the New Hampshire Emergency Services Unit and other state and local partners, responded to a state declared public health incident for patients who were identified as being at high risk to a hospital associated exposure to the hepatitis C virus (HCV). Patients hospitalized during a defined time frame were contacted, advised to be tested for antibody to HCV, and were offered a blood draw appointment at a scheduled clinic. The New Hampshire Public Health Laboratories (NH PHL) was responsible for the testing areas of the eight clinics or points of dispensing (PODs) using the OraQuick® HCV Rapid Antibody Test. To obtain the patients' blood, perform the rapid HCV antibody testing, and report accurate results back to the patient on the same day, proper laboratory technique and best practices

were used to assure high standards of quality.

The NH PHL assured quality testing would be performed under the guidance of their Clinical Laboratory Improvement Amendment (CLIA) Certificate of Compliance. Plans for patient sampling throughput were developed for the eight facilities to be used for patient clinics. Upon patient registration and proof of identity, phlebotomy consent was obtained, a laboratory requisition was completed, and patient identifying labels were generated. Following an established venipuncture procedure, a phlebotomist drew the blood and verified that the patient's name corresponded to the name on the paperwork. One ethylenediaminetetraacetic acid (EDTA) tube and two serum separator tubes (SSTs) were collected during the venipuncture. The EDTA tube was used for the rapid testing and the SSTs were sent to the NH PHL for centrifugation and further testing following an HCV testing algorithm for serum specimens.

A laboratory manager was assigned as an overseer for rapid testing at each POD. The manager was the laboratory group supervisor appointed by the incident commander. The manager assured positive

TABLE OF CONTENTS

Quality in a POD ~ 1

A Culture of Cooperation ~ 3

Nemo Gets His Background Checked ~ 4

NH PHL Participates in Fungal Meningitis

Outbreak ~ 5

Getting Our Hands Dirty ~ 6

Something's Fishy ~ 8

Staff Updates ~ 9

Extracts Crossword ~ 11

Career Opportunities ~ 12

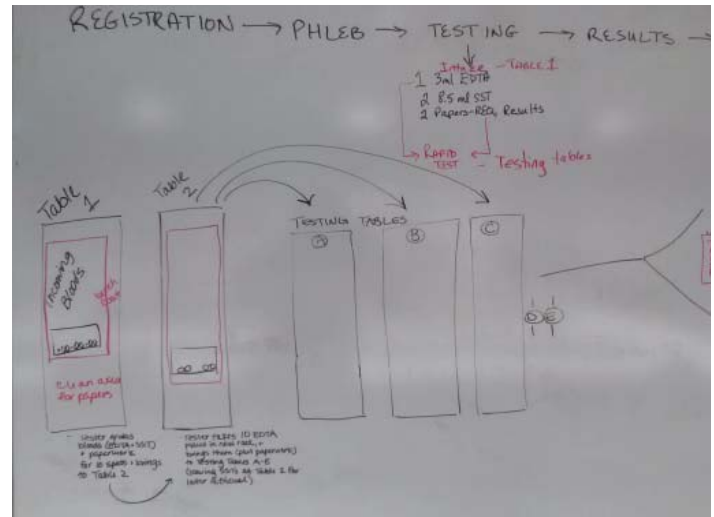


Phlebotomist performing venipuncture on a patient

and negative controls were run in accordance with assay instructions, documented the temperature of the testing area and refrigeration daily, and reviewed all worksheets and result transcription prior to the release of results. To confirm results, all reaction strips that gave a reactive (positive) or invalid result were repeated by another tester. Test results were interpreted and recorded on a laboratory worksheet, the laboratory requisition, and two patient result forms. All results were given to healthcare providers such as doctors or nurses who explained the results to the patients. Social workers were available if patients wanted or needed assistance. Most results were given to the patient within one hour.

The testing staff was comprised of 25 laboratory personnel from the New Hampshire Laboratory Response Network (NH LRN), partner laboratory personnel, and NH PHL staff. All testers were credentialed and trained to be proficient and competent in obtaining accurate test results. Specimens were tested following the OraSure Technologies, Inc. instructions. A total of 1215 patient and quality control tests were performed at the eight PODs (Table). Those analysts who conducted >10% of all tests were identified and their performance was reviewed. It was determined that the amount of testing performed was within reason for those individuals, as they had staffed more than one POD.

Eight PODs were scheduled over seven days to provide rapid HCV testing for approximately 3000 people who were identified as high risk to the hospital-



Early POD planning at the NH PHL

associated exposure to the HCV. Due to limitations of the manufacturer of the rapid test kit, OraSure Technologies, Inc., pregnant women and children less than 15 years old were not tested at the PODs. These patients' serum specimens were sent to the NH PHL for testing.

Nearly 1200 patients attended the PODs and 478 patients (38%) returned a Public Health Clinic Satisfaction Survey upon check out. A Likert scale comprised of four questions was used to measure patient satisfaction (1=Very Unsatisfied to 5=Very Satisfied). Areas surveyed were: (1) communication, (2) scheduling of appointment, (3) having questions answered, and (4) overall satisfaction with the rapid testing clinic. The most frequent response for the Likert scale was 5 (Very Satisfied). There was also a section

Table 1. The date, location, and number of results at each POD.

Date	Location	Non-Reactive (Negative)	Reactive (Positive)	Invalid	Total Patients Tested	Total Tests Performed (Repeats & Controls)	Testing Not Performed		
							Pregnant Women	<15 years of age	Other
August 10, 2012	Stratham I	480	10	0	490	508	1	0	3
August 11, 2012	Stratham II	312	4	1	317	324	0	4	1
August 14, 2012	Plaistow I	82	3	0	85	90	0	3	3
August 15, 2012	Plaistow II	95	3	0	98	104	0	1	0
August 16, 2012	Rochester	75	2	0	77	81	0	0	0
August 16, 2012	Manchester I	42	0	0	42	46	0	1	1
August 17, 2012	Manchester II	34	0	0	34	36	0	0	0
August 18, 2012	Manchester III	24	0	0	24	26	0	4	1
Totals		1144	22	1	1167	1215	1*	13*	9*
Total patients "Tests Not Performed"					23*				
Total venipunctures					1190				



OraQuick® Test Paddles

hospitals, and the laboratory community worked hard to coordinate the logistics of testing, meet patient needs, and show dedication to the health and well being of those exposed. The NH PHL formally thanks all of those participants who helped us with this successful response.



POD Registration

for suggested improvements. Some comments from patients indicated that the PODs were well organized, their feelings of anxiety had been addressed, and that they appreciated the opportunity to be tested.

The New Hampshire Public Health Laboratory System pulled together during a time of need, while assuring quality at every step. Various State agencies,

A Culture of Cooperation

Jennifer Mahoney, PhD, Molecular Diagnostics Unit Supervisor

Teamwork is the ability to work as a group toward a common vision, even if that vision becomes extremely blurry. – Author unknown

In the early days of the now infamous hepatitis C virus (HCV) outbreak investigation at Exeter Hospital, in Exeter, NH, our “common vision” of managing and ending an outbreak was often blurred by this rapidly unfolding public health crisis. Despite the long hours, thousands of tests, intense public scrutiny, and both scientific and legal pressure, the New Hampshire Department of Health and Human Services (NH DHHS) never wavered in its commitment to provide a fair and thorough outbreak investigation. Looking back, a year after the first three patients were linked to a hospital employee, the blurred moments have given way to clarity as we reflect upon the accomplishments of the outbreak investigation team.

Teamwork and communication were absolutely critical as the investigation got off the ground. Early on, the New Hampshire Bureau of Infectious Disease Control (BIDC) and the NH PHL collaborated to

develop a testing algorithm that would serve as a road map for the investigation. Following this algorithm, the NH PHL Laboratory Information Management System (LIMS) group and the NH PHL Central Receiving Unit worked together to create test codes and train volunteers to triage specimens. Members of the NH PHL communicated daily with Exeter Hospital to



Members of the NH PHL Molecular Diagnostics Unit working on HCV sequencing

coordinate blood draws and specimen transportation. The NH PHL Virology & Molecular Diagnostics (Virology/MDX) Unit worked around the clock to tackle the enormous volume of samples. As the investigation grew, an incident command center was established which united the NH PHL, the Centers for Disease Control and Prevention, the NH BIDC, the DHHS Public Information Office, and the NH Logistics, Legal and Finance groups. Each day, the Virology/MDX Unit reported results of diagnostic and sequence-based testing, which were critical for decision making and relevant to the epidemiologic investigation. Our team had quickly grown from a few individuals to a diverse group that would eventually include the NH State Police, the NH Office of the Attorney General, lawyers, and the Federal Bureau of Investigation.

When the number of patients indicated for testing reached a few thousand, clinics were set up to collect blood specimens for onsite rapid HCV testing. These specimens were also sent to the NH PHL for confirmatory diagnostics and sequence analysis utilizing the established HCV testing algorithm. It took a Herculean effort to coordinate the logistics of a CLIA-approved testing center held in a nontraditional setting on short notice. In spite of obstacles met and grappled with along the path, the NH PHL and its many stakeholders managed to cooperate to make it happen. When a representative of the rapid test manufacturer, OraSure Technologies, Inc., came to the PHL to train “testers,” NH PHL management watched as staff from the Water Analysis, Virology, Molecular, Clinical Microbiology, Chemistry, and Radiochemistry Units as well as New Hampshire public health nurses and hospital laboratorians stood shoulder to shoulder, all willing to learn a new role and spend their evenings and weekends staffing the clinics. Not to be forgotten in this process were the many laboratorians who quietly filled the less glamorous roles of routine testing and picked up the slack for those of us consumed with the HCV investigation. The NH PHL continued normal operations during this event in an impressive display of teamwork and volunteerism.

Today, as the “source” has plead guilty to these charges and the investigation transitions from scientific to criminal, it is important to acknowledge that our success is the result of the collective contributions of so many individuals. Our ability to come together

as a team in response to a large-scale event in New Hampshire helped identify and stop a serious public health threat. This investigation exemplifies how important an existing culture of cooperation is when faced with the need to mobilize and respond to a crisis.

Nemo Gets His Background Checked

Brian Scherer, Laboratory Scientist,
Radiochemistry Unit

In 2010, the State of Vermont found Strontium-90 (Sr-90) in fish from the Connecticut River while performing their normal environmental testing. Although the amounts were well below the Food and Drug Administration (FDA) level of concern for ingestion, they were still higher than expected background activity. This prompted a tri-state effort to determine what the actual background levels were for Sr-90 in fish in the northern New England area. The three states that were involved in this project were Vermont, Massachusetts, and New Hampshire.

At the time of this printing, the NH PHL had collected three sets of wide mouth bass samples. Radioanalysis testing for Sr-90 was performed at the Winchester Engineering and Analytical Center (WEAC), an FDA lab in Massachusetts.



Bass from Squam Lake

The first set of 30 samples, collected from Hermit Lake in Sanbornton, all tested below reportable limits for Sr-90 in the edible portion of the fish. The average for these samples was 0.155 Becquerel per kilogram (Bq/kg), which can be used as the background activity level for this lake. The NH PHL needed a larger distribution of lakes to get a better idea of what the average would

be throughout New Hampshire, therefore a second set of fish was collected.

A total of 28 wide mouth bass samples were collected from bass fishing derbies in September of 2012. Sites included Lake Winnepesaukee (Meredith, Center Harbor), Connecticut River (Hinsdale), Newfound Lake (Holderness), Squam Lake (Holderness), Pleasant Lake (Deerfield), Pawtuckaway Lake (Nottingham), Opechee Lake (Laconia), Northwood Lake (Northwood), and



Squam Lake

Highland Lake (Stoddard). Three fish were collected at each location, except for the Connecticut River and Opechee Lake where two samples were collected. The minimum weight necessary to meet the data quality objectives was 2 lbs (0.91 Kg).

The results for the second set of fish were similar to the first set in that they were all below reportable limits; the average was 0.160 Bq/kg. In May of 2013, a third and final set of fish was collected from Lee's Pond in Moultonborough. This set is currently being analyzed by WEAC and the results are expected this summer. For questions regarding this study, please contact Debanond Chakraborty, NH PHL Radiochemistry Unit Supervisor, at (603) 271-2023.

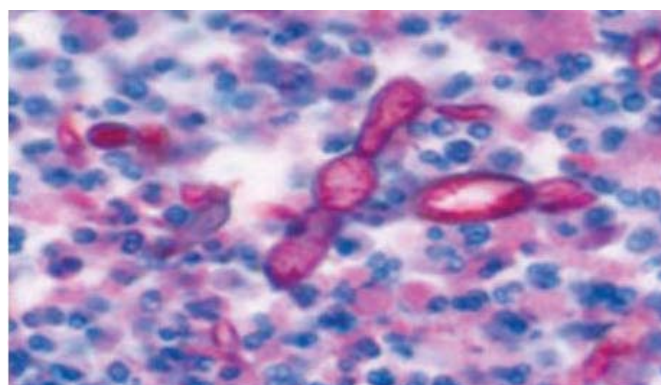
NH PHL Participates in Fungal Meningitis Investigation

Wendy Lamothe, MPH, M(ASCP),
Clinical Microbiology Unit Supervisor
Susanne Desrosiers, Microbiologist,
Virology & Special Testing Unit

Having experienced a frozen laboratory in January 2012 and a public health incident response to a cluster of hepatitis C virus cases in the fall of 2012, the NH PHL was immersed in yet another public health incident

in October 2012. Once again, the response tested the Lab's resources and reinforced its mission to fulfill the Ten Essential Public Health Services.¹

On October 4, 2012, the NH PHL became aware of facilities in New Hampshire that had received several lots of the recalled product, preservative-free methylprednisolone acetate (MPA) (80mg/ml). During the previous week (on September 26, 2012) the New England Compounding Center (NECC) in Framingham, Massachusetts had voluntarily recalled three lots of preservative-free MPA, a product which is used for pain management and administered as an epidural and joint medication. MPA had very recently become associated with fungal infections of the central nervous system after the first case was reported to the Tennessee Department of Health on September 18, 2012. By September 25, eight individuals were diagnosed with fungal meningitis, all of whom had received epidural glucocorticoid injections, specifically MPA originating from the NECC. The primary fungal agent implicated in this meningitis outbreak was identified as *Exserohilum rostratum*, a mold found in soil and plants, which is rarely known to cause infection.²



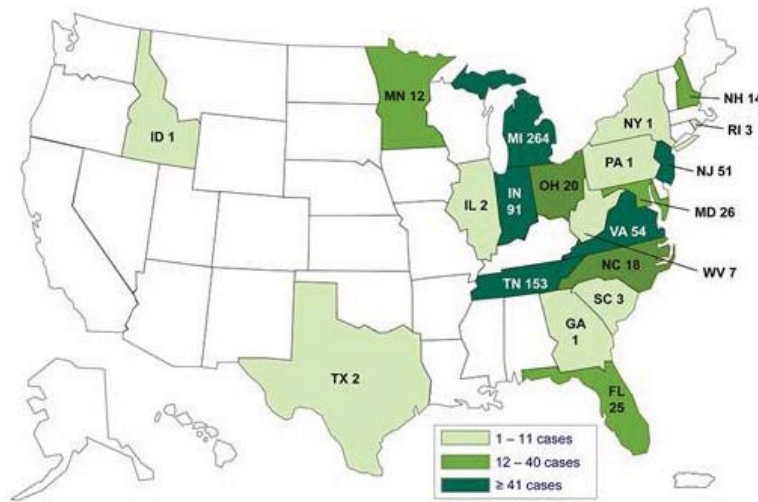
Fungal hyphae (red) from a spinal meningitis case (CDC)

During this response, the role of the NH PHL was to organize specimens (cerebrospinal fluid and blood) from many different facilities for submission to the Centers for Disease Control and Prevention (CDC) for testing. The CDC performed investigational polymerase chain reaction (PCR) methods for the detection of fungal agents, and more specifically, *Exserohilum rostratum*. The NH PHL also communicated recommendations for testing to Laboratory Response Network (LRN) laboratories, facilitated requests for information by the NH Bureau of Infectious Disease Control (BIDC) to the LRN laboratories, and assisted with surge testing.

In the month of October, 2012, the NH PHL

received twenty-five times the number of fungal and acid-fast bacillus smear samples than is normally tested during that period. During the height of the outbreak, the BACTEC instrument that incubates and reads blood culture bottles reached capacity, resulting in the implementation of back-up procedures. A total of 14 cases of fungal infection associated with the outbreak have been identified here in New Hampshire: nine instances of meningitis and five joint infections.

This incident affirms how the NH PHL strives to operate according to the public health Core Functions and Ten Essential Services. Of particular note is the focus of our efforts on protecting the health of



Outbreak case counts as of July 1, 2013³

- Centers for Disease Control and Prevention. "National Public Health Performance Standards Program. 10 Essential Public Health Services." 2010. Web. 2 April 2013. <<http://www.cdc.gov/nphpsp/essentialservices.html>.
- Kainer et al. Fungal infections associated with contaminated methylprednisolone in Tennessee. (2012). *The New England Journal of Medicine*, 367(November 2012), 2194-2203.
- Centers for Disease Control and Prevention. Multi-state Fungal Meningitis Outbreak Investigation. "Multi-state Meningitis Outbreak—Current Case Count." 1 July 2013. Web. 17 July 2013. <<http://www.cdc.gov/hai/outbreaks/meningitis-map-large.html>.

the citizens of New Hampshire and being responsive and proactive in a public health emergency.

References

Getting Our Hands Dirty
The NH PHL Analyzes a Superfund Site
 Patricia Bickford, Deputy Laboratory Director (Retired)
 Kim Beers, Laboratory Scientist, Water Analysis Lab

In May 2000, thirty acres of land in Nashua, New Hampshire were proposed to be on the National Priorities List (which are those that are part of the Superfund cleanup process) by the U.S. Environmental Protection Agency (US EPA). The area was the site of the former Mohawk Tannery, which tanned animal hides for leather from 1924 to 1984. During the tanning process, wastewater was directly discharged into the Nashua River and sludge was disposed of into seven unlined lagoons. The wastewater contained such hazardous substances as chromium, zinc, and phenol. The sludge contained chromium, pentachlorophenol, 4-methylphenol, dioxins, and 2,4,6 trichlorophenol, which are also very hazardous substances.

The site is divided into two fifteen-acre parcels of land (north and south). The northern parcel is where the tannery manufacturing and waste disposal operations took place. The southern parcel is largely undeveloped and does not appear to have been used by the tannery.



One of the lagoons where sludge was disposed.

In an effort to delist the southern parcel of land from the National Priorities List and allow possible reuse of the land in the future, sampling was done to determine the level of human health and ecological risk. If no



EPA sign

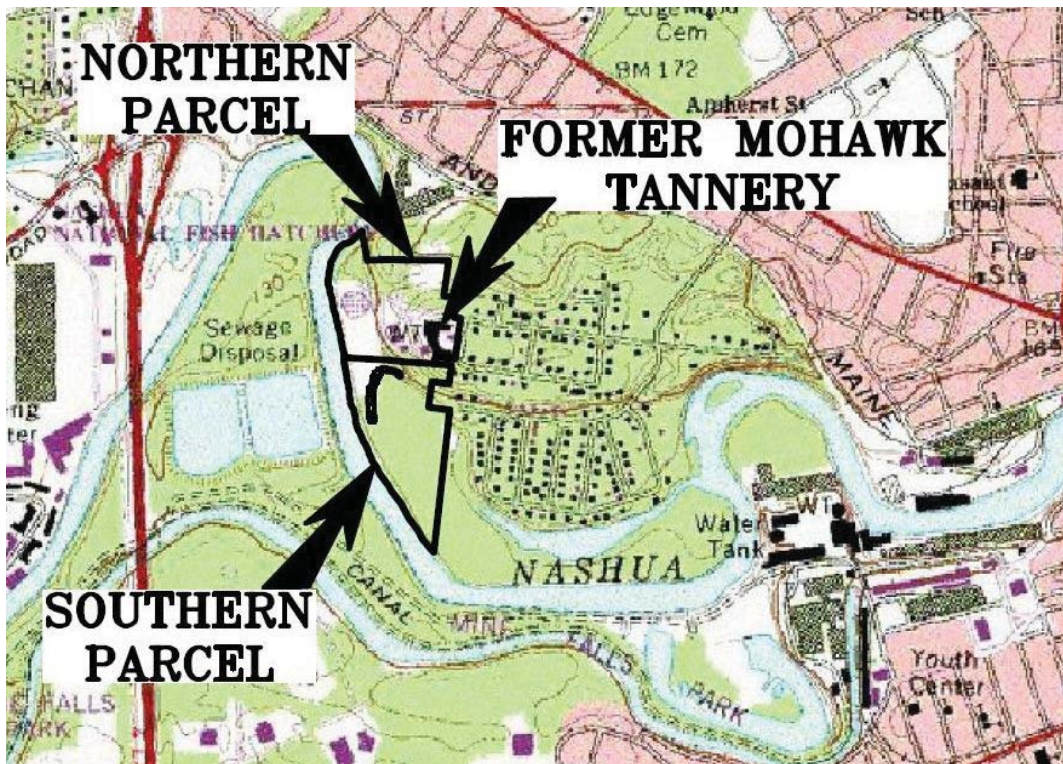
succeeded in achieving all the data quality objectives. These data quality objectives included such indicators as: precision, bias, representativeness, completeness, comparability, and sensitivity. At this time, the US EPA risk assessment team is evaluating the data and a decision on the state of the parcel will be forthcoming.

The Water Analysis Lab typically conducts about 16,500 metals analyses per year; however, less than 1% of these are on non-aqueous samples. The Lab used this opportunity to expand its proficiency with this type of analysis as well as for cross training colleagues who provided valuable assistance throughout the project.

For more information on the Mohawk Tannery site, please visit the NH Department of Environmental Services or the US EPA. For questions regarding water and soil testing, please contact Lou Barinelli, Chemistry Technical Director, Water Analysis Lab, at (603) 271-2994.

unacceptable risks were identified, then portions of the southern parcel would be recommended for delisting.

The NH PHL Water Analysis Lab collaborated with the US EPA New England Regional Laboratory and contract labs to analyze samples from the southern parcel. The NH PHL analyzed 90 soil/sediment and 30 water samples for nine metals (antimony, arsenic, barium, cadmium, lead, manganese, mercury, thallium, and vanadium). This event was noteworthy as this was the first time that the Lab ever received and analyzed this many soil and sediment samples at one time. (The Lab typically receives about ten soil samples a year!) This challenged the Lab's metals analysis group, but they



Mohawk Site Map

The most incomprehensible thing about the universe is that it is all comprehensible.

- Albert Einstein

Something's Fishy An Interactive Case Study

Peggy Sweeney, MS, Tuberculosis Unit Supervisor

Joe* is a 67-year-old retired accountant. He is very active and in relatively good health.

It started as an unassuming nodule on Joe's right arm. It didn't really bother him, so he forgot about it until weeks later when the lesion appeared to have enlarged. Joe went to his primary care physician who prescribed a topical antibiotic cream. His doctor cautioned him, "If you don't see any improvement in a couple of weeks, let me know."

At this point, what type of organism is the doctor suspecting?

Joe did not see any improvement after two weeks. In fact, the lesions appeared to be spreading up his arm. Joe returned to his doctor's office. "Joe," his doctor remarked, "it doesn't look any better. I think we need to do a culture. I don't think it is a typical bacterium causing this problem since the antibiotics did not help. It could be fungal. Have you been working in your rose garden recently?"



Lesions caused by case study organisms

What fungal organism does the doctor think may be causing Joe's problem?

Joe replied that he usually does putter around the garden in the mornings on weekends. Then he goes

*The case discussed in this article is a combination of a couple of cases seen at the NH PHL. The patient's name has been changed to protect his identity.

inside for lunch and either cleans his fish tank or reads for a bit.

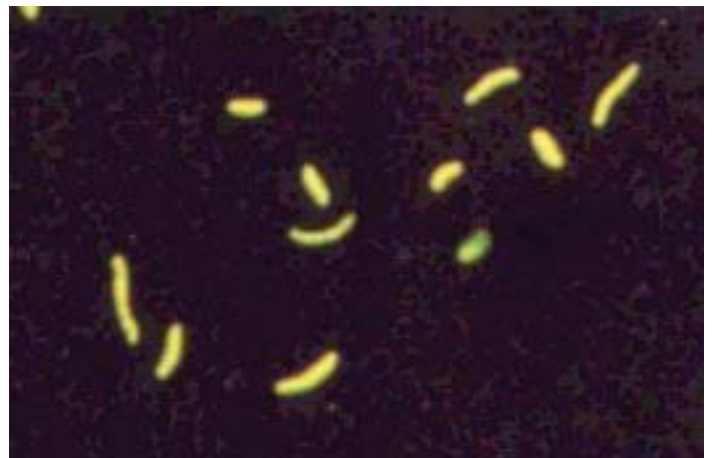
"You have a fish tank?" the doctor asked. "Why, yes," replied Joe. "I've had it for years and have quite the collection of fish." With this new bit of information the doctor ordered both a *Mycobacterium* and a fungal culture.



Fish tank similar to patient's

What organism is the doctor now adding to his differential diagnosis?

A skin biopsy was taken and submitted to the NH PHL. Since the specimen was from the skin, the NH PHL set up both a room temperature (25–28°C) and a body temperature (37°C) culture. Initial smears for fungal elements and acid-fast bacilli were negative. The culture became positive three weeks after receipt of the specimen. An acid-fast smear was performed and acid-fast bacilli were seen.



Acid-fast organism stained with fluorescent stain

Four nucleic acid probes, including *Mycobacterium tuberculosis* complex, *Mycobacterium avium* complex, *Mycobacterium gordonae*, and *Mycobacterium kansasii*, were performed and all were negative. After four weeks the fungal culture was reported as ‘No growth.’

Do these biochemical results support the doctor’s suspicions?

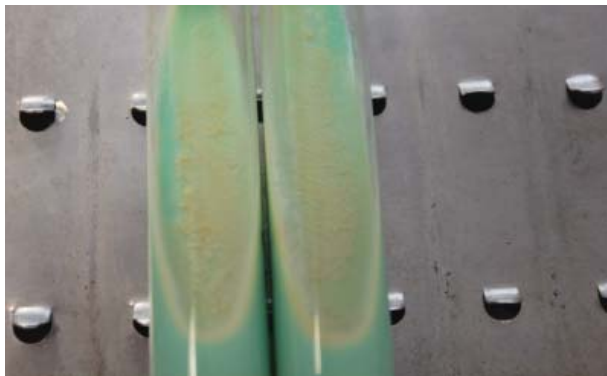
A final identification of *Mycobacterium marinum* was determined and a report was issued for Joe. Proper therapy was started and a full recovery was expected.

What would be the most probable organism the doctor is suspecting?

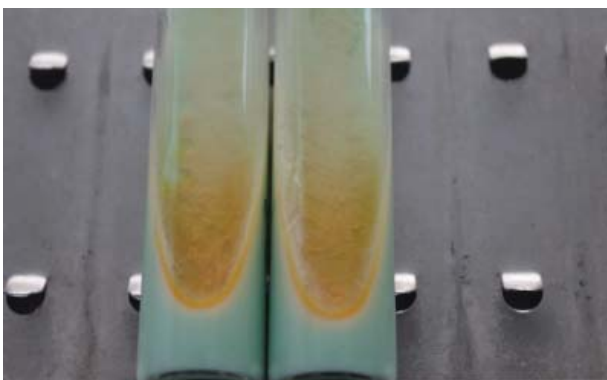
Growth from the solid media (Lowenstein-Jensen slants) was used to perform routine biochemical testing and pigmentation studies. After two weeks, the final biochemical results were as follows:

Biochemical test	Result
3 day arylsulfatase	Negative
2 week arylsulfatase	Positive
Iron uptake	Negative
Growth on 5% NaCl	Negative
Nitrate reduction	Negative
Tween hydrolysis	Positive
Urea	Positive
Semi-quantitative catalase <45mm	Negative

Pigmentation studies revealed a photochromogen organism (see photos below - buff colored in the dark and yellow when exposed to light).



Cultures in dark



Cultures after exposure to light



The NH PHL isolates *Mycobacterium marinum* from three to four cultures per year. It is a slow growing, environmental organism found in both fresh and salt waters throughout the world. Most infections occur following skin exposure to the bacteria through a small cut or skin scrape. Care should be taken when working in the fishing industry or other aquatic environments. When cleaning your fish tank, be sure to wear waterproof gloves and wash your hands and forearms thoroughly with soap and water when finished.

For more information on testing specimens for *Mycobacterium marinum* or other *Mycobacteria* species, please contact Peggy Sweeney, NH PHL Tuberculosis Unit Supervisor, at (603) 271-4785.

Staff Updates
 Sandie White, Administrative Secretary
 Kim Beers, Laboratory Scientist,
 Water Analysis Unit

The Lab Welcomes Katie Brown!

The NH PHL welcomes new employee Katie Brown to our Finance/IT unit as a Secretary II. Katie comes to us from Intralot as a Business Analyst/ Assistant Operations Manager for the Montana and New Hampshire Lottery. Katie assisted the General and Operations Manager to ensure system integration, quality assurance testing, and the deployment of software. Katie was involved in training and development including creation and implementation of procedures and manuals. Prior to working at Intralot, Katie worked for Bridgeport Physical Therapy and assisted with patient treatment plans and exercises in Bridgeport, Connecticut. Katie makes her home in Tilton with her husband Stan. In her free time she enjoys golfing, kayaking, live music, traveling, and spending time with her friends and family. Welcome to the team, Katie!



Katie Brown



A Fond Farewell to Pat Bickford!

Patricia Bickford retired on January 31, 2013 after 27 years of dedicated service to the New Hampshire Department of Environmental Services (DES) and the Department of Health and Human Services (DHHS) in the field of laboratory analysis and management.

Born and raised in Dover, New Hampshire, Pat received a bachelor's degree in chemistry from Stonehill College in North Easton, Massachusetts and her master's degree in chemistry from the University of New Hampshire. When she started working for the State in January of 1986 as a chemist, the lab was part of the Water Supply and Pollution Control Commission. A year later, DES was formed by combining the Air Resources Agency, the Office of Waste Management, the Water Supply and Pollution Control Commission, and the Water Resources Board. Pat quickly rose through the ranks to become the DES Laboratory

Director, a position she held for over 20 years.

With assistance from many colleagues, Pat helped the laboratory navigate the many changes that occurred during her 27 years:

- The lab went through a construction renovation in 2003. This helped modernize the lab; address many mechanical, safety, and space issues; and allowed for safer, more efficient work. The construction lasted three years.
- The nature of the samples coming into the lab changed due to U.S. Environmental Protection Agency (US EPA) and DES regulations. The identification, clean up, and monitoring of Superfund sites and the identification of new contaminants (such as methyl-t-butyl ether [MTBE]) have brought increased and varied work to the lab.
- Pat oversaw the implementation of two Laboratory Information Management Systems (LIMS) and she was the acting LIMS administrator until her retirement.
- She worked with Dr. Christine Bean (NH PHL Lab Director) on the logistics of merging the DES Laboratory with the Public Health Laboratory on July 1, 2011.

Pat was a leader in creating regional partnerships with other public health and environmental laboratories across New England, as well as in cooperating with the



Retiree Pat Bickford receives recognition from DES Commissioner Tom Burack

US EPA on joint research and continuous improvement initiatives.

Pat was extremely dedicated and enthusiastic about her job. Everyone saw her as a go-to person that could always help with almost any issue, whether it involved LIMS, contracting, or just an ear to listen. As her commendation from the DES Commissioner and administrators states, Pat’s “thoughtful review and careful interpretation of the myriad of environmental analyses over the years have proved critical to protecting environmental and public health across

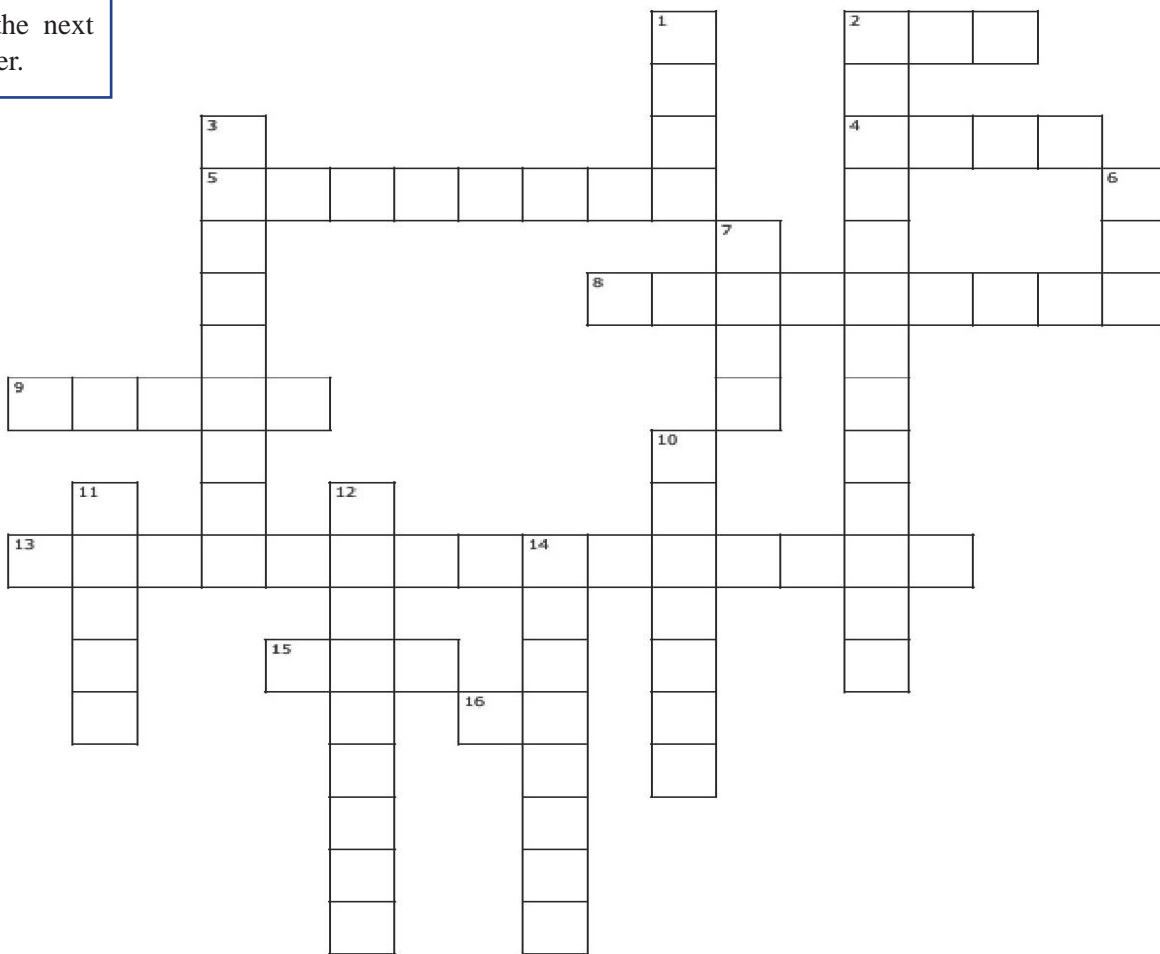
New Hampshire.” She will be sorely missed.

Pat’s favorite part of her job was always serving people, whether it was the lab team she worked with daily or the NH PHL’s customers. The Lab always worked as a team with the goal to serve the public and preserve the public’s health and the environment. This is what she will miss the most.

Pat’s immediate plans are to renovate her home and gardens, continue eldercare for both her mother and mother-in-law, and take some time this summer to hike and swim in the White Mountains.

Extracts Crossword

The answers will be published in the next newsletter.



Across

- 2. independent feline critter
- 4. average
- 5. its chemical symbol is Sb
- 8. its radioactive form may be found in power plants
- 9. open spaces in the middle of buildings
- 13. intestinal distress
- 15. on-site clinic for rapid testing
- 16. syllable sometimes used in meditation

Down

- 1. waiters use it to carry food
- 2. critical skill for a team
- 3. CDC surveillance group for sequencing
- 6. edge
- 7. referring to the mouth
- 10. original name of intestinal virus
- 11. boat used with a paddle
- 12. cruise ship organism
- 14. describes group acting together



Pat's retirement cake, baked by the NH PHL's creative chemist, Melissa McNamara

NH PHL Career Opportunities

The NH PHL will soon begin the exciting process of looking for an Emergency Response Lab Toxicologist and Chemistry Program Manager to join our team. Although the positions have not been posted yet, please check the NH DHHS employment listing website frequently as they will be soon: <http://admin.state.nh.us/hr/employmentlisting.html>. Below are summarized job descriptions.

Toxicologist IV - Emergency Response Lab Toxicologist

Serves as a scientific expert and advisor by managing chemical terrorism, tampering, and contamination activities for the Public Health Laboratories with responsibility for conducting scientific forensic and non-forensic analyses to generate data from criminal investigations and public health emergencies. (Position Number 42882)

Toxicologist V - Chemistry Program Manager

Administers scientific surveys in chemistry, toxicology, and water analysis with responsibility for managing, planning, and policy development, and providing technical consultation to public health, environmental services, and medical partners. Master's degree required (Doctoral degree preferred). (Position Number 43325)

New Hampshire Department of Health and Human Services

Nicholas Toumpas, Commissioner

José Montero, MD, Director
Division of Public Health Services

Christine Bean, PhD, Director
Public Health Laboratories



*To join communities and families in
providing opportunities for citizens to
achieve health and independence.*



New Hampshire Department of
Health and Human Services
Division of Public Health
Services
Bureau of Laboratory Services
Public Health Laboratories
29 Hazen Drive, Concord, NH
03301-6527
(800) 852-3345 TTY 711
www.dhhs.nh.gov

*Please call (603) 271-4661 to
reach the lab directly or email
Jill Power at jill.j.power@dhhs.state.nh.us with any newsletter-
related questions.*

The NH PHL Newsletter Committee would like to thank those who contributed to this publication—not only do they have their everyday tasks to tend to, but they graciously agreed to write an article (or two!) and we sincerely appreciate their willingness to help.

The NH PHL Newsletter Committee: Kim Beers, Amanda Cosser, Susanne Desrosiers, Jill Power, Peggy Sweeny, and Sandie White