



## Client profile: PAML Laboratories



Dave Michaelsen

Founded in 1957, PAML Laboratories, LLC, located in Spokane, Wash., is a division of Bourget Health Services, Inc., and Catholic Health Initiatives. Dave Michaelsen, General Manager of Toxicology, came to PAML 25 years ago, introducing them to the drug testing industry. He started with only five screens a month.

Now, PAML operates a full-service reference laboratory, hospital partnerships and laboratory joint ventures. The laboratory is now the largest independent laboratory in the Northwest. PAML delivers a wide range of testing services to more than 100 hospitals in the United States.

“We seem to be the driving force with testing and development,” said Michaelsen.

By not competing with other laboratories for the lowest price, Michaelsen said he can focus on the type of business he would rather have—one built on quality service and testing.

PAML is a one-stop shop for hospitals and laboratories looking for outreach testing in their area. Those organizations can increase their service offerings by adding PAML’s test options to their list. In addition, hospitals and laboratories can focus on what they already do and turn over their challenges, like website management or marketing, to the professionals at PAML.

“We have a seamless operation no matter what location, so clients in Denver don’t realize the testing is in Spokane,” said Michaelsen.

Since PAML focuses on workplace drug testing and pain management, they benefit from USDTL’s clinical test offerings. By relying on USDTL’s research and development team, PAML can offer tests they have not developed.

“It allows us to start offering new lines and tests much more quickly by referencing them out than waiting eight or 12 months to get it on board,” said Michaelsen. “Meconium and [umbilical] cord, specifically, are the type of tests I don’t have to worry about getting set up.”

PAML can offer niche tests like umbilical cord immediately through USDTL, instead of spending time and money in their laboratory.

“Even if it’s not in-house, we have a lot of resources to go to,” said Michaelsen.

-Heather Sliwinski

Marketing Communications Manager

## Featured FAQ of the quarter

**Q: My report states the test was cancelled due to “Profile not indicated-fax request to the lab.” What does this mean?**

A: The laboratory must receive, in writing, an order indicating which test profile to perform for each specimen. When no test profile box is marked on the requisition form, we accession the specimen into our computer system, so that we have a record of its receipt, and “reject it” because the profile was not indicated. When you receive this report, please contact the laboratory with instructions in writing as to which profile you want performed. Please write the profile on the report, and fax the “rejected report” to the lab.

-Heather Sliwinski

Marketing Communications Manager

## Improving neonatal abstinence scoring with reliability exams

by Karen D’Apolito, Ph.D.  
Contributing Author

The problem of drug abuse among pregnant women continues to be a national health issue. The National Survey on Drug Use and Health in 2006 and the CDC National Vital Statistics in 2009 estimated that 160,000 newborns, or 4 percent of all live births in the United States, were exposed to drugs during pregnancy.

Approximately 55 percent to 95 percent of infants exposed to these drugs will experience withdrawal. This withdrawal can be severe if not adequately assessed and treated. Therefore, anyone caring for these infants must be able to assess for neonatal abstinence with accuracy.

The most common clinical assessment tool used to assess newborn infants for signs and symptoms of withdrawal is the Finnegan Scoring Tool. This tool contains the 21 signs and symptoms present in infants experiencing withdrawal, developed by Dr. Loretta Finnegan in 1975 (Table 1).

Each of the items has a corresponding weighted score. Signs or symptoms with the higher weighted score are considered more severe. After all items are assessed and scored, the infant gets a total withdrawal score, which is obtained by adding up all the scores given to the baby. If this total score is eight or greater, the baby would require pharmacologic management.

One concern that has arisen in practice is inconsistency in defining each of the items that comprise the tool. Therefore, each health care provider assessing the infant scores the baby based on their interpretation of the item.

For example, the determination between observing a baby to have mild, moderate or severe tremors while being handled (disturbed) is left up to the individual interpretation of the observer. This interpretation creates an inconsistency with scoring. As a result, babies may be under treated or over treated based on the subjective interpretation of the items by the scorer.

To remedy this problem, I developed an inter-observer reliability program for the Finnegan Scoring Tool. This program includes an instructional manual and DVD. The manual includes a definition for all of the items comprising the Finnegan Scoring Tool. The DVD contains a demonstration of a baby being examined for signs and symptoms of withdrawal using the definitions. The baby is then given a score.

The DVD also contains two observations of different babies being examined for signs and symptoms of withdrawal. Participants are asked to view the exam and then score the baby independently using the Finnegan Scoring Tool. Once this is completed there is a review video of the exam pointing out the signs and symptoms that were present in the baby. The baby is then scored by the video examiner.

Once the review and scoring are completed, the participants are asked to compare their scoring for the items of the exam with the video examiner and determine their inter-observer reliability. The inter-observer reliability is based on the number of agreements the participant has with the items scored on the video. To be reliable in using the Finnegan Scoring Tool, participants must obtain a 90 percent agreement with the video scoring. If participants do not

Table 1: Finnegan Scoring Tool: Signs and Symptoms (Finnegan, et al, 1975)

Central Nervous System Disturbances	Score
Crying: Excessive High Pitched	2
Crying: Continuous High Pitched	3
Sleeps <1 hour after feeding	3
Sleeps <2 hours after feeding	2
Sleeps <3 hours after feeding	1
Hyperactive Moro Reflex	2
Markedly Hyperactive Moro Reflex	3
Mild Tremors: Disturbed	1
Mod-Severe Tremors Disturbed	2
Mild Tremors: Undisturbed	3
Mod-Severe Tremors Undisturbed	4
Increased Muscle Tone	2
Excoriation (Specific Area)	1
Myoclonic Jerks	3
Generalized Convulsions	5
Metabolic, Vasomotor and Respiratory Disturbances	
Sweating	1
Fever <101	1
Fever >101	2
Frequent Yawning (>3)	1
Mottling	1
Nasal Stuffiness	1
Sneezing (>3)	1
Nasal Flaring	2
Respiratory Rate (>60/min)	1
Respiratory Rate (>60/min with retractions)	2
Gastrointestinal Disturbances	
Excessive Sucking	1
Poor Feeding	2
Regurgitation	2
Projectile Vomiting	3
Loose Stools	2
Watery Stools	3
Total Score	

obtain at least a 90 percent, they are instructed to review the item definitions and complete the training again using the second exam.

This program was presented to 10 hospitals within the United States and improved practice tremendously. With an accurate Finnegan score, signs and symptoms of withdrawal are better controlled, and infants are being discharged from the hospital sooner. To find out more about this program, please visit to [www.Neoadvances.com](http://www.Neoadvances.com).

Karen D’Apolito, Ph.D., APN, NNP-BC, is a professor and director of the neonatal nurse practitioner program at Vanderbilt University School of Nursing.

-Finnegan, L, et al, (1975). Neonatal abstinence syndrome. Assessment and management. Addictive Diseases an International Journal, 2, 141-158.

-Fricker, H. & Segal, S. (1974). Narcotic addiction, pregnancy, and the newborn. American Journal of Diseases in Children, 132, 360-366.

-Harper, R, et al. (1974). The effect of methadone treatment program upon pregnancy heroin addicts and their infants. Pediatrics 54, 300-305.

-Madden, J. et al., (1977). Observation and treatment of neonatal narcotic withdrawal. American Journal of Obstetrics & Gynecology, 127, 199-201.

-National Center for Disease Control & Prevention, (2009). Vital Statistics Report [http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\\_07.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_07.pdf)

-Substance Abuse and Mental Health Administration. Results from the 2006 National Survey on Drug Use and Health: National Findings. Office of Applied Studies, NSDUH Series H-32, DHHS, Publication No. SMA 07-4293, Rockville, MD, 2007.