

THE HIDDEN PROFESSION THAT SAVES LIVES

By Tati Kubheka

MEDICAL LABORATORY SCIENCE (ALSO CALLED CLINICAL LABORATORY SCIENCE) IS ONE OF THE MOST UNDER-RECOGNIZED HEALTH PROFESSIONS.

What is Medical Laboratory Science?

Medical laboratory science involves diagnostic laboratory testing from A to Z. These professionals do everything from providing your cancer testing results, to predicting the correct antibiotic to prescribe, to typing the correct blood for surgery. Medical Technologist professionals provide answers to life-and-death scenarios every day.

Have you ever wondered who conducts the detailed laboratory testing for your annual exam, such as cholesterol and glucose levels, and analyzes the results? Or who conducts specialized testing for genetic disorders like sickle cell disease? How about those who identify an antibiotic resistant infection like *Methicillin Resistant Staphylococcus aureus* (MRSA), *Caberenem Resistant Enterobacteriaceae* (CRE) and determine which antibiotic is required to save someone's life? Well, if you thought that it was your physician, or perhaps a nurse or someone else you see at your doctor's office or in the hospital, you would be incorrect. In fact, you would probably not want your personal physician to do your lab tests because the specialized skills required are not an integral part of the medical school curriculum.

Medical Laboratory Technologists provide up to 70 percent of patients' laboratory testing to clinicians so they can provide an accurate diagnosis and treatment plan, according to a 2002 study in *Clinical Leadership and Management Review* titled "The Value of the Laboratory Professional in the Continuum of Care." In that study, author Rodney Forsman, Administrative Director Emeritus of the Mayo Clinic Medical Laboratories and President of the Clinical Laboratory Management Association, stated that 94% of the objective medical data in the patient record comes from laboratory professionals. This just proves how important the profession is and yet it is under recognized.

Doctors rely on laboratory test results to make informed patient diagnoses. Patient history along with physical signs and symptoms are vital, but most diagnoses need confirmation that only laboratory tests can provide. The laboratory professionals also contribute to wellness testing, guiding treatment, and monitoring patient progress. It is not an overstatement to say that our professionals provide critical lifesaving information many times over the course of a work day. For example, complex testing to cross-match your blood for emergency surgery,



to identify a genetic abnormality of a newborn, or to assist in the diagnosis of cystic fibrosis and cancers like Hodgkin's disease.

Formal coursework training in medical laboratory testing comprises of a small portion of the curriculum for most health care professionals. However, medical laboratory professionals' theory for all 1,000+ available lab tests, sources of interference, and connections between test results and diagnoses is the main focus of their studies.

Challenges faced by bench techs in clinical laboratories

There are a lot of challenges facing clinical laboratory technologists. Be it a sudden spike in the number of samples to be processed or the ongoing pressure for faster turnaround times (TAT), the medical laboratory can be a stressful place. Plus, due to the nature of the healthcare industry, professional issues tend to arise between specialties—many times with the lab caught in the middle. Below are some of the challenges facing Medical Laboratory Professionals:

- **Critical Calls.** It should be universally understood that critical calls are meant to improve patient safety and care. If a bench tech needs to spend extra time trying to reach a patient to give a critical result, then the patient is being negatively impacted. Having to sit through several options on a recorded message and being bounced around before speaking to someone who's willing to take the result doesn't do anyone any good.
- **Short Staffing.** Many labs across the county are short staffed. With many in the workforce nearing retirement, there are not enough new professionals coming in to replace them. More bench techs will be working overtime and picking up extra shifts. Bench techs are often asked to double their workloads, many times performing more than one bench a day. Short staffing issues can take a real toll on bench techs and can lead to burnout.
- **Disconnect with Upper Management.** Many bench techs have little-to-no interaction with upper management. This is unfortunate because, many times, the decisions made by upper management impact the bench techs the most. If there was more open dialogue between bench techs and upper management, decisions to purchase a new instrument or add an additional full-time position could be made with a better understanding of the actual day-to-day workflow in mind.
- **Lack of Management Training.** Many Medical Laboratory Professionals become managers without any formal managerial training. This results in good bench techs becoming bad managers. It does not necessarily mean that they are inherently bad, but that they haven't been given a chance to develop managerial skills before taking on the role. Unskilled managers can be a stress for bench techs if there are issues with communication, delegating tasks and conflict—such as disciplining an employee.
- **Clashes with Co-Workers.** Co-workers are like family, and just like family, there are some that we like more than others. Labs are a high stress environment, so it is likely that you will find yourself in an argument with a co-worker at some point. Co-workers that act like arch-nemeses can bring everyone down. Constant bickering and bad-mouthing affects the moral of the whole lab. There are also just toxic employees that just seem unable to get along or work with anyone without complaining.
- **Strained Relationships with Other Healthcare Professionals.** It's no secret that Medical Laboratory Professionals and other healthcare professionals don't always get along. We understand it's a high stress environment, and we're all just trying to take care of our patients, but it makes it more difficult to complete a test when we're constantly being asked for an update, or when it will be finished. Many Medical Laboratory Professionals have been on the receiving end of a hostile phone call, trying to explain that we are waiting for IQC to come out, or that it's a batch test, not direct access, etc. Keeping calm and professional is always the best way to go—on both ends of the line. Most of the time, we're asked those questions because other healthcare professionals don't fully understand how the lab works. Help them out.



- **Difficultly Participating in Professional Organization Events.** Attending national health professional council, SMLTA or ASLM meetings are great networking and educational experiences. Unfortunately, bench techs do not always get to take advantage of these opportunities. Not every facility will reimburse those attending the meeting. Attending meetings can be expensive, and it can be financially challenging to attend a meeting out of pocket. Additionally, not all employers offer education time to attend the meeting, so a Medical Laboratory Professional may have to use vacation or personal time.
- **Public Awareness.** When meeting someone new or attending a family reunion, it's inevitable that someone is going to ask, "So, what do you do?" Some of us have our "I'm a medical laboratory professional" speech ready to go and attempt to educate them about the career. Even then, we are still sometimes faced with blank stares—or worse, the dreaded, "**Oh, so you're like a nurse.**"
- **Murphy's Law with Equipment.** Ever notice how instruments always seem to act up during the busiest times? The back-up equipment always seems to go down at the same time too, and they always seem to break when the one person that knows how to fix it is on vacation.
- **Constant, Rapid Change.** Medical Laboratory Professionals—and many other healthcare professionals—don't always know what they're going to come across during the workday, which

can make the job more interesting in some regards, but can also make things very stressful. In a lab, things can change in an instant. It may be really slow at one point in the day, and then an hour later, it's swamped. Anything can happen at any moment, and bench techs need to stay on their toes and be prepared.

Solution

If all the above points could be addressed, if the public could be educated about the biomedical technology profession, then more lives can be saved.

If everyone reading this article can convince one young person to study biomedical laboratory science then more lives can be saved. TAT will be improved and staff shortages will be a thing of the past!!!

Conclusion

"Medical laboratory scientists are on the cutting edge of determining — by evidence-based practice — the most useful, time-efficient, safest, least costly diagnostic tests to be used for your health care. They are involved in the research needed to bring the best that science and technology can offer into the realm of diagnostic reality, all for the benefit of the patients we serve."

References

Elsevier's textbooks on Clinical Laboratory Science

CONTACT INFORMATION

SANAS website: www.sanas.co.za | **Main Switchboard No:** +27 (0) 12 394-3760 | **General Fax No:** +27 (0) 12 394-0526 |

Physical Addresses: the dti Campus, Block G, Ground Floor | 77 Meintjies Street, Sunnyside, Pretoria | **SANAS Knowledge**

Transfer Centre: 121 Muckleneuck Street Nieuw Muckleneuk | Pretoria | 0002 | Private Bag X23 | Sunnyside | Pretoria | 0132

