

Biomed Tech Training Document Guides Staff Development, Promotions

Jill Schlabig Williams

In today's tight job market for biomed, healthcare facilities can't afford to let their highly trained technicians stagnate under antiquated personnel systems. Senior managers in the Clinical Engineering Department at the University of Rochester Medical Center (URMC) in Rochester, NY, learned that lesson first-hand when they started losing valuable, trained junior-level technicians who were trapped in a system based on seniority. Now, a comprehensive revamp of their system has formalized a skills-based promotion system, codified training requirements, and adjusted salaries. The result? Re-energized employees, satisfied managers, and appreciative senior hospital administrators.

Challenge

Until recently, the junior technicians at UMRC had to wait until a senior biomed left the department to vie for an opportunity to be promoted. In a 30-person department, those junior techs sometimes found themselves waiting for quite a while. They were frustrated that they couldn't advance and grow, and their managers were concerned at the turnover they were experiencing as these highly trained techs left for better opportunities elsewhere.

"Losing trained staff was a problem because of competition in the field for qualified staff and the high cost of turnover of trained, valuable employees," says Don DiVita, the clinical engineering director. "There were lots of questions and dissatisfaction from staff, who didn't know what it would take to be promoted. We were locked into a system of junior techs and senior techs, and those junior techs couldn't advance until a senior tech retired."

The department's leadership knew that solving this problem was key to their success. "URMC has always

At a Glance

Subject: University of Rochester Medical Center

Location: Rochester, NY

Size: Three-hospital system includes Strong Memorial Hospital, Highland Hospital, and Golisano Children's Hospital

Staff: In-house clinical engineering services department includes 30 team members



been proactive about spending money on training people. Technicians need to get vendor training to do their job effectively. This training can be expensive, and we wanted to keep those trained staff by offering promotion opportunities," says DiVita.

To solve the problem, the department managers—working with senior hospital administrators and the human resources (HR) department—undertook an effort to eliminate that seniority-based system and move instead to a qualification-based system. "We wanted to give people the opportunity to have a place to go, make this a more attractive place to work, and make staff more likely to stay here long-term. We knew that investing money in training staff would go a long way to promote staff satisfaction. Once staff got the training, we needed to develop a method to promote them so they wouldn't have to go



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elsewhere to make more money,” says DiVita.

“This initiative was staff-driven,” he says. “It was an effort to improve staff satisfaction and retention. We wanted to create an opportunity for people to grow.”

Solution

Because of the project’s budget implications, obtaining the buy-in of senior management was the first step in the process. DiVita says that it was also one of the easiest steps because senior management wanted to stop the turnover and keep their trained technicians.

“It was an easy sell because senior management values our employees and wants us to keep these highly trained experts,” says DiVita. “It sent a good message, that senior leadership values our employees.”

Next, the hospital’s HR department helped the team conduct a market salary survey. “The goal of the salary survey was to ensure that our technicians were being paid appropriately,” says DiVita. Prior to launching the survey, the team had to develop updated job descriptions and define the various technician levels. A formal career ladder was developed as well, which included training and competency requirements for each level. Staff had an opportunity to comment on both the job descriptions and the career ladder.

One key accomplishment here was changing the way the technician jobs were classified within the university system. Previously, the technician job descriptions fell under the university job classification of “research technician.” Now, it has been recognized that a biomedical technician has a distinct skill set.

Another important step was the development of a documentation and tracking system to formalize the training and advancement requirements. Biomed team leader Stan Phillips and a former department director came up with the idea of using the U.S. Air Force’s cradle-to-grave personnel training record called AF Form 623, On-The-Job Training Record, as a model they could customize to meet their needs.

The team modified the Air Force form to fashion their own comprehensive biomedical technician training document which outlines the competency and training requirements for promotion from BMET I through BMET IV. They ultimately created a 37-page document that they call their “Career Field Training and Promo-



The clinical engineering leadership team at URMCC worked together to develop a new promotion system for the staff. Pictured, left to right, are: Bill Vidro, imaging team leader; Don DiVita, department director; Stan Phillips and Eileen Cowie, biomed team leaders, and Nils Gurdin, clinical engineering operations manager.

tion Guidelines (or Career Ladder).”

“Developing that form was the long and painful part of this project,” says Phillips. “It was a group effort. We went through our equipment database and different asset classes.” The database—which tracks more than 30,000 pieces of equipment—includes about 600 types of equipment. The team grouped those equipment types into about 80 classes, and defined training and competency requirements for each type of equipment.

The career ladder document that they now use to manage this process is divided into two parts. The first part provides information necessary for the overall management of the program. Section A explains the purpose and use of the plan; Section B outlines the factors (knowledge, training, education, experience, and other) required for advancement to the next skill level. Section C provides references and Internet links to support training commensurate with the overall goals of the plan.

The second part of the career ladder document is a series of checklist records in spreadsheet form that make up each individual employee’s recorded information, including:

- A chart to identify trainers and trainee by name and written initials
- An explanation of the proficiency code keys that are used throughout the Task and Proficiency Record
- Several pages of detailed forms that outline each skill needed for career progression with space for

training start and end dates and initials from both the trainee and the supervisor

- A blank form to record manufacturer and model-specific training history
- Additional forms to record personal academic, professional, institutional, and community achievements

Phillips describes the second part of the career ladder document as a “glorified spreadsheet.” It outlines the steps an employee must take to reach a given promotion level on each type of equipment and includes space for a supervisor to sign off on progress. The document is expected to be a technician’s lifetime document of all competencies accomplished, including original equipment manufacturer (OEM), third-party, and in-house training.

Individual biomedics are not expected to be an expert in all 80 classes of equipment, but are expected to work with their supervisors to define and expand their areas of expertise as warranted by department needs and technician interest levels.

The department is split into two biomed teams and an imaging team. While the initial career ladder creation effort focused only on the biomed technicians, the program is being expanded to encompass imaging technicians as well.

The availability of training opportunities is key to the success of the promotion system. “Luckily, our department has always received significant support from hospital senior leaders for our training needs,” says DiVita. “It is our policy that technicians who attend training must come back and perform in-service training. We’ve found that this policy is great for cross-training our staff on new equipment for backup coverage as needed.” In this way, even technicians who aren’t tapped to attend vendor training can expand their skill sets and gain competency in new technologies.

From entry-level technicians to the BMET II level, choices of training are largely manager-driven. “New technicians come in at BMET I and are expected to progress to BMET II within 18 months so that they can begin to play a role in our on-call system,” says DiVita. “Beyond that, training and career progression depend on an individual technician’s career goals. It is up to them and their supervisors to pursue specialized training.” Decisions are driven by factors such as which equipment is coming off of maintenance and where retraining is needed. “We strive to match those training opportunities to the career needs of our staff,” he adds.

“Twice a year, team leaders talk with each technician about their career path and where they see their future. The team leaders consider both department and individual needs when making training decisions,” says DiVita. From those conversations, team leaders make individual employee plans and create an overall training plan for the department.

The completion of the minimum standards with recommendations from the technician’s immediate supervisor and an acceptable annual performance report would qualify the technician for promotion. Team leaders use the equipment maintenance database to review the equipment worked on by all technicians as part of the determination for meeting performance and competency expectations. “Once a technician is trained on a device by either formal vendor training or by peer training, the team leaders will ask the other senior techs on the team if based on their observations the tech is knowledgeable on the device, and then observe themselves,” says DiVita.

The document is also used during the interview process for new hires. “A prospective candidate’s resume is reviewed to determine what level they will be hired into based on the career ladder requirements,” says DiVita. “Once hired, they complete the training record with the assistance of their team leader. New hires still need to prove that they are competent in the listed areas even though they come with experience from other hospitals or industry.”

“The system has been constantly evolving,” says Phillips. “We began using it with technicians last year and have since made more changes.”

Of course, there is more to receiving a promotion than simply meeting training requirements. “People skills are important too,” says DiVita. “Before a promotion, an employee must receive a positive evaluation in terms of teamwork, customer service, and patient-focused care. They need a recommendation from all team leaders before any promotion is approved.”

Results

All involved say that the effort—which required hundreds of man-hours—was well worth it. They wound up with a well-defined system that outlines competency levels that must be reached and reduces much of the subjective decision-making formerly involved in the promotion process. The significant senior management buy-in necessary to launch the project also boosted department morale.

The salary survey concluded that the staff was underpaid, and found that a significant market increase in the range of \$90,000 was needed, which was given to the staff in the form of salary increases. The increases were allocated based on staff's years of experience, level, performance, and where they were in the salary range for their level. "This had a definite positive impact on staff satisfaction," says DiVita.

New techs just joining the department benefit from a well-defined career path. "Our entry-level and new hires think that this system is a wonderful thing, because it makes their promotion path very clear," DiVita says.

Eileen Cowie, one of the biomed team leaders, says that the system is exactly what they needed. "It is not a paperwork nightmare. We just document a written start date and finish date on each requirement, any training they've received or given, and sign off that an employee is qualified to take the next step," says Cowie. "Each employee has their own private document. It helps with our performance evaluations, and is an excellent way to demonstrate staff competency

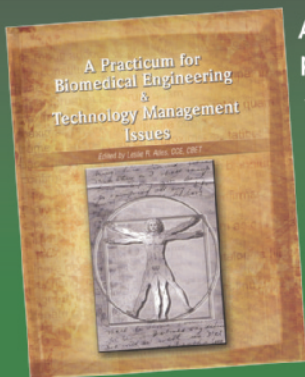


Dave Prince was one of the technicians at URM to be promoted to BMET II by using the newly developed career ladder.

to surveying bodies like The Joint Commission."

"Throughout the process, our message to the staff was that we're listening and we're trying to improve things," says DiVita. "Now, we're seeing improved staff satisfaction and less turnover." ■

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