When the Technical Services Partnership (TSP) at the University of Vermont (UVM) read the first edition of the AAMI HTM Levels Guide in 2014, the department found that it didn’t quite meet the criteria for an “advanced” health technology management (HTM) program. Reaching the top level—level 3, according to the guide—would require a majority of TSP’s technical staff to hold a professional certification.

At 15% certification, TSP stood a bit short of that goal.

“We’ve always had high levels of certification with our clinical engineering staff, but we identified a need to put forth the effort and energy to increase the level of certification within our organization as a whole,” said Mike Lane, associate director of TSP at UVM. “We firmly believe that certification adds value, as an organization and also for our staff. It promotes being at the top of the field.”

To reach the highest HTM level, TSP leadership needed to engage staff to want to become certified biomedical technicians (CBETs). They had to provide tools to gain knowledge, despite working at facilities spread throughout three states.

And ultimately—they had to pass the test. To face this challenge, TSP developed a 14-week certification course and webinar series called Cert Now!

**Challenge**

TSP is a not-for-profit department within UVM that provides comprehensive HTM services for more than 45,000 square mile area spanning northeastern New York, Vermont, and New Hampshire. To bridge that distance, the Cert Now! program would need to make use of web learning, while providing needed support to certification-seeking employees who could be brand new to the field or seasoned veterans who hadn’t attempted the exam in decades.

“I worked for a few different companies and in 30 years I never got around to taking the certification test. During our study groups a lot of the things that came up—anatomy, physiology, for example—you really don’t deal with that much on a daily basis. The study groups actually helped tremendously,” said Bob McInally, a biomedical equipment technician at Gifford Medical Center in Randolph, VT, who became certified biomedical equipment technicians (CBETs). They had to provide tools to gain knowledge, despite working at facilities spread throughout three states.

“At a Glance

SUBJECT
Technical Services Partnership at the University of Vermont

LOCATION
Burlington, VT

SIZE
28 hospitals and several hundred clinics

STAFF
50+ employees
certified for the first time last year after participating in the Cert Now! program.

The Cert Now! course utilized resources from UVM’s online biomedical equipment technology courses, materials from previous course instructions, certification exam review materials, and AAMI (Figure 1). Webinars and course materials such as online flash cards were made available on a TSP SharePoint site. Topics included medical device regulations, electricity fundamentals, problem solving, information technology (IT), anatomy, physiology, safety, and more.

“Basically, we started at ground zero in terms of basic topics such as anatomy and physiology, in case these areas were in the distant past of some of our longer-term employees,” said Tobey Clark, director at TSP, and an instructor for the program. “We also had others that had been in the field for a much shorter period of time and passed the exam as candidates.”

**Solution**
To promote and encourage the Cert Now! program, TSP set aside time during the day to allow for group study, added CBET certification as a staff performance review item, offered bonuses for obtaining certification, and paid the fees for the exam. They also pitched the program at TSP’s annual meeting, where its technicians would all be present, face-to-face.

“There was time for us to be able to convince several members to fill out the application that we had right there with us, committing to doing it at that time. So one way of getting a lot of individuals on board, if you have a large organization, is to do it during that annual meeting or some kind of group membership meeting,” said Larry Robert, biomedical services supervisor for the southeast region, and an instructor for the Cert Now! program.

For the weekly, online review sessions, organizers would send information out ahead of time for study and discussion, along with work questions—minus the answers—for discussion. The review sessions were focused questions on the specific topic of the week. Each member of the webinar was selected to answer a question and others were provided the opportunity to offer their thoughts. The answer to the question was then revealed allowing for further discussion. Each session was recorded and uploaded online for those who couldn’t make the virtual meetings. Some didn’t have time to stop, but participated nonetheless.

“We actually had individuals who were listening to the recorded webinars in the car as they were travelling,” Lane said.

**AAMI’s HTM Levels Guide**
groups HTM programs into three categories:

**Fundamental.** These programs provide a basic level of technology services and compliance with applicable standards and regulations. This is the minimum level, suitable for new HTM programs and those in very small healthcare organizations.

**Established.** Programs at this level have moved beyond the basics to provide additional services, with a focus on cost-effectiveness. All HTM programs should work to achieve this level of performance for their organizations.

**Advanced.** These programs are on the leading edge, demonstrating the full range of potential for HTM contributions to patient care. Very few programs achieve this level of performance across the board, but every HTM program can find opportunities for improvement at this level.

A free PDF copy of the [HTM Levels Guide](www.aami.org) is available at www.aami.org.

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**About the Author**

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**Figure 1.** Resources used in the Cert Now! study program included webinars, exam reviews, online flash cards, in-person review sessions, and more.
Andy Koval, a CBET at Northwestern Medical Center in St. Albans, VT, who’s been working in the field for 25 years, said he and his classmates called in for the review sessions from wherever they happened to be working.

“The certification exam is one of those ‘I’ll get to it’ and then it never happens things. But a program like this was a great way to boost my confidence,” Koval said. “I found the sessions to be a really good snapshot of where I was a little bit weak, where I was strong, and then also giving me the opportunity to enhance the areas that I think I needed to. It was very helpful for me—and I passed the test.”

Results
The final day before the certification test, after more than two months of preparation and collaboration online, the Cert Now! students met in person for one final review of the material.

“Obviously, there are continued questions that would come up in areas that we’re looking to focus on, even after going through the 14 weeks of webinars,” Clark said. “That last day, all of the staff who came through the final review session had areas that they really wanted to kind of focus on, had questions on, and they provided us with information ahead of time. That in-person session was very important.”

Ultimately, 100% of the 14 staff members who took the exam within TSP and four others from outside organizations passed the CBET certification exam in May and November 2015.

“This enhances and supports the goal of patient safety that builds trust and confidence with your employer. It’s another tool to protect the employer’s medical assets and also build self-confidence. In general, it enhances the healthcare technical profession overall,” said Steven Robbins, a CBET at Alice Hyde Medical Center in Malone, NY.

The effort continues this fall, with the objective of achieving 100% certification for TSP staff who are qualified for certification. The lessons and impact of the Cert Now! Program will continue beyond the CBET certification exam.

“Further enhancement of the CertNow! Initiative will focus on Certified Healthcare Technology Manager (CHTM) certification of our supervisory staff in 2016.” Lane said.

“Moving forward, in coming years we expect to expand the initiative to Network+ certification.”

“We’re pushing forward on certification in general. Our CBET certification numbers weren’t as high as we wanted them to be—and now they’re much higher. But our next goal is CHTM, which we will be seeking from all of our supervisors, health technology managers, and others that are on our staff that have a role in healthcare technology management at their facilities,” Clark said. “So, we hope to do something similar to the Cert Now! program to get our staff certified at the highest level.”

“A program like this was a great way to boost my confidence. I found the sessions to be a really good snapshot of where I was a little bit weak, where I was strong, and then also giving me the opportunity to enhance the areas that I think I needed to.”

— Andy Koval, CBET at Northwestern Medical Center in St. Albans, VT