Allied Health Professions

HEALTH CARE Careers '90

By HOLLY BIGELOW MARTIN

Advances in high technology for the medical field have transformed Allied-Health professions into an exciting, fulfilling and lucrative career field. New Jersey hosptials and medical centers are desperately seeking radiological technicians, physical therapists and medical laboratory workers, and are willing to give competitive salaries and top benefits packages to those who qualify.

What are the Allied-Health professions, and why is there such an urgent need for workers in this field?

"We consider Allied-Health professionals anybody that contributes to the medical care of the patient," says Deborah Fallon Smith, director of public relations at Dover General Hospital. "People who work in this field have medical training and interact with patients, but don't have day-to-day responsibility for patient care."

One of the biggest needs is in the field of radiation therapy, which treats tumors using electrically generated radiation. "Our new linear accelerator is unique in that it can produce two photon energies in a single machine," says Suzanne Styring, supervisor of radiation oncology at Dover General's new Dr. Nicholas A. Bertha Regional Cancer Center." The 15-megavolt beam can deliver more of a dose deeper into tissue than the six-megavolt beam." The beams work by bombarding the cells, without distinguishing between good and bad cells. By treating only five days a week, the two days off on weekends allow the good cells to regenerate, while the cancer cells can't regenerate as quickly.

"It's very rewarding," Styring says. "Patients are very grateful. Many are cured, and a lot of those that walked in with pain, walk out of here after four weeks of treatment pain-free.

According to Styring, there were over 2,000 radiation therapy jobs available across the country last year, and only 400 graduating technologists. "We definitely need more people in the field," she says.

Susan Styring, supervisor of radiation oncology prepares patient

"There is a tremendous need for X-ray technicians right now, both in hospitals and in private offices," says Beverly Patrizze, program director for the School of Radiography at Hackensack Medical Center. The school's four-month course teaches technicians to do all types of general X-rays, and gives a basic introduction to ultrasonography, nuclear medicine, CAT scanning, special procedures, radiation therapy and the newest diagnostic technology, magnetic resonance imaging, or MRI.

"MRI works on the hydrogen atoms in the body," says Brent Albert, an instructor at the school. "Each atom has a magnetic moment, just like pieces of metal do, so that when they are introduced to a high magnetic field, they align themselves in the direction of the field, like compasses pointing north. The MRI machine then injects radio frequency waves into the body, which knocks the 'compasses' out of phase, so they point south instead of north. When you turn the frequency off, the compasses point north again, and in the process, generate an electrical signal which is used by the computer

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to create an image. The different concentrations of hydrogen in each part of the body allow you to distingush between them in the reconstructed image.

"Radiation technology in the last five years has advanced exponentially, as compared with the last 20 years," Albert says. "The development of computed tomography and MRI has opened up a whole new specialization, so that people in the basic radiology fields are being recruited for these more specialized areas. This creates more openings in the general diagnostic X-ray area."

Another important Allied Health field is electrophysiology. Ed Berkhart, an engineer at The General Hospital Center at Passaic, studies the electrical conduction of the heart. "One of the things we do here is help the doctors implant automatic internal cardioverter defibrillator (AICD) devices," he says. "This piece of hardware can deliver an electrical shock to get a heart beating normally again, if it's irregular, or to restore the rythym of a fibrillating heart, which is quivering like jello and not beating at all." The device can detect which of the two is taking place, and deliver the correct electrical pulse to fix it.

After implanting the AICD, Berkhart tests whether or not it's working correctly by actually causing the person's heart to beat irregularly, and waiting to see that the device actually detects and corrects it. Berkhart adjusts the unit remotely, using a programming head, a machine that looks like a microphone from a CB radio, which sends and receives information from the implanted AICD over radio waves.

When heart surgery is necessary, another type of Allied Health professional— the perfusion technologist—sets up, operates and monitors a heart-lung machine, which pumps and oxygenates the blood while the heart is out of commission during surgery. "This is not a new technology, it's been around for about 25 years. But what we do now is a lot more efficient and safer for the patient than it was back then," says Ron Hoey of Passaic General.

Perfusionists are probably the highest paid technical employees in the hospital, Hoey says, with salaries over $50,000 a year. There are only three perfusion technology schools in the state, including one at Passaic General, and only 23 in the country, which means graduates are in high demand.

Barbara Mansolino, a recruiter for St. Peter's Medical Center finds that the hardest positions to fill are physical therapists, nuclear medicine technologists and radiation therapy technologists. Part of the problem is a lack of schools for these disciplines, as well as the demanding training programs and high stress on the job. "Even though salaries are incredible, hospitals sometimes have to look for a year to fill a vacancy," she says.

Ultrasound technology enchances Dover General's Cardiology Department

While the crunch is an to find Allied Health professionals, the new technologies are helping to fill the gaps. "Automation in the lab has helped medical technologists and technicians deliver enhanced patient care, because they're getting those results out faster," says Suzanne Cohen, assistant director of public relations at Union Hospital.

"The opportunity for challenging and rewarding careers in health care has grown tremendously," says Susan McCatty, an employment specialist at Mercer Medical Center in Trenton. "Health care is a very big industry in this country and the need and challenge will be there for avery long time to come."