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# Medical Group Urges New Rules on Radiation

By WALT BOGDANICH

The leading professional organization dedicated to radiation oncology has called for enhanced safety measures in administering medical radiation, including the establishment of the nation's first central database for the reporting of errors involving linear accelerators — machines that generate radiation — and CT scanners.

The group, the American Society for Radiation Oncology, or Astro, issued a six-point plan on Wednesday that it said would improve safety and quality and reduce the chances of medical errors.

Even though the group says serious radiation accidents are rare, it says it will work toward a stronger accreditation program, expanded training, and an enhanced program to ensure that medical technologies from different manufacturers can safely transfer information.

Astro will also press for federal legislation to require national standards for radiation therapy treatment teams, along with additional resources for the Radiological Physics Center, a federally financed group that evaluates the safety of treatments.

Dr. Anthony L. Zietman, professor of radiation oncology at Harvard Medical School and Astro's president, said the goal was to "take measures that are currently in existence, recognize them and then work to strengthen them and above all work to reassure patients."

The group said it began a comprehensive review of existing policies last week after two articles in The New York Times reported on the harm that can result when powerful and technologically complex machines go awry and when basic safety procedures are not followed.

The articles reported that medical personnel who work with the new radiation technology were concerned that quality assurance, or QA, had not kept pace with the changes.

"Over the week every patient that comes in wants to know what our QA measures are," Dr. Zietman said. "And that's fine. They should know this."

He said this heightened awareness "forces us to improve our QA and our training."

Astro said it planned to help cancer patients and caregivers know what questions to ask their radiation oncologists and treatment teams.

Dr. Tim R. Williams, the group's chairman, said he found the articles in The Times "deeply troubling."

“In any area of medicine, and radiation oncology is no exception, even one error is too many,” said Dr. Williams, a radiation oncologist in Boca Raton, Fla. “Any errors, no matter how small, must be reported, understood and used as a tool to further reduce the potential for future errors.”

The Times found that while serious radiation accidents were indeed rare, it was impossible to know how often they occurred: there is no central clearinghouse for such cases, and they are chronically underreported. What is more, radiation injuries can take years to show.

Still, The Times reported that the Radiological Physics Center had found that nearly 30 percent of hospitals seeking admission into National Cancer Institute trials had failed to accurately irradiate an object, called a phantom, that mimicked the human head and neck.

A study group of the American Association of Physicists in Medicine called that failure rate “a sobering statistic.” Medical physicists play a vital role in ensuring that radiation equipment is properly calibrated and that patients receive only what has been prescribed, no more, no less.

Only a handful of states license medical physicists. In 17 states, the technicians or therapists who operate the radiotherapy machines do not have to be licensed. And eight states allow therapists to perform medical imaging other than mammography with no credentials or educational requirements.

Astro, which says it has more than 10,000 members, including radiation oncologists and medical physicists, recognized that the patchwork approach to regulation by state and federal governments left safety gaps, Dr. Zietman said.

Citing The Times’s finding that in some areas of the country radiation accidents need not be reported, he said that patient safety was not enhanced by a lack of uniform reporting requirements.

“States all have different rules, different determinations of what is a misadministration of radiation,” he said. “This all needs to be tidied up.”

Dr. Zietman endorses an anonymous reporting system, much like the airline industry’s. “Then we could see if there are hospitals or regions where there are problems,” he said.

Dr. Howard I. Amols, chief of clinical physics at Memorial Sloan-Kettering Cancer Center in New York, called Astro’s response a good first step. “They’re telling the public that radiation is a safe and effective cancer treatment, but we know it can be made even safer,” Dr. Amols said.

Noting that airlines have an even better safety record than radiotherapy, he added, “We need to learn from them.”