

Facts regarding the safety of radiation therapy

- The *New York Times* story identified 621 errors over eight years, many of which were minor. We estimate that half a million New Yorkers received radiation therapy over this time period, receiving 13.6 million radiation therapy treatments, meaning errors occurred only .0046 percent of the time. In other words, radiation therapy is safe and effective 99.99 percent of the time.
- Even one error is too many. However, for every one medical error in New York as reported by the *New York Times*, we estimate radiation oncologists delivered nearly 22,000 treatments safely and accurately. The vast majority of patients received excellent care and benefit from cure or reduced pain through radiation.
- We are concerned some patients may avoid lifesaving treatments like radiation therapy due to fear and concerns raised in this article. However, it's important to note that more than three out of four patients survive their cancer. This means your odds of beating cancer with the help of treatments like radiation therapy are significantly greater than being harmed by a mistake.
- The severity of the errors mentioned in this article is tragic and incredibly unusual. They are not typical in any way of complications experienced with radiation therapy.
- There are rigid quality assurance regulations in place for hospitals and physicians at the state and federal levels.
- Patients should talk with their radiation oncologist about a treatment's benefits and risks. It is reasonable to ask to discuss the details of your treatment plan and to learn about the quality assurance checks and balances at that clinic or hospital. Over the course of each treatment, doctors, therapists, physicists and nurses conduct quality assurance checks to ensure patients receive the right treatment. Patients and their loved ones are also free to ask about ongoing QA controls.
- A team of highly trained medical professionals are responsible for delivering radiation therapy. It is led by a radiation oncologist and includes medical physicists, dosimetrists, radiation therapists and radiation oncology nurses.
- To give the best treatments possible, the radiation oncologist creates a treatment plan with the medical physicist and dosimetrist based on the patient's cancer, medical history and additional concerns. Before treatment, they conduct a simulation with the patient to ensure that radiation prescribed in the treatment plan will indeed hit the intended targets as planned.
- Patients may want to bring a family member or friend to appointments. It often helps to have someone to gather information, ask questions and act as an advocate. They may also want to visit www.rtanswers.org for additional information on radiation therapy for cancer and other diseases.

- Radiation oncologists are the only physicians with the expertise and training to prescribe and deliver radiation therapy treatments. In addition to college and medical school, five years of additional training are required for radiation oncologists. Radiation oncologists receive extensive training in cancer medicine, in the safe and effective use of radiation to treat disease, and in managing any side effects caused by radiation.
- This training includes 500 hours of work experience handling live radiation sources and 200 hours of training in radiation physics, radiation protection, radiation biology and mathematics pertaining to the use and measurement of radioactivity. Once the radiation oncologist passes an examination by the American Board of Radiology, he or she is board certified.
- ASTRO works continuously to strengthen the radiation oncology safety culture. We are at the forefront by providing quality assurance tools, such as hands on training for sophisticated treatments like IMRT, IGRT and SBRT; guidelines on the appropriate use of treatments; panels of experts assessing new technologies and individual practice accreditation.
- ASTRO is also working to prevent medical errors by leading Integrating Health Care – Radiation Oncology (IHERO), an international coalition that aims to improve equipment interconnectivity.
- All treatments for cancer pose risks and patients should discuss them with their doctors. Radiation therapy is a tool no different than a knife in the hands of a surgeon. It should be used only by those with appropriate training and board certification.