



RO-ILS Radiation Oncologist 2024 Great Catch

With improving cancer survivorship there is an increasing need to properly manage and consider information related to prior radiation. RO-ILS has shared education on this important patient safety topic before, but there are many nuances and potential failure points in this error pathway. For example, in a [2020 Case Study](#), the radiation oncology practice updated software and as a result didn't have easy access to their own prior radiation treatment details. In a [2023 Great Catch](#), a dosimetrist identified prior treatment information that was simply missed.

In this RO-ILS event, prior radiation from an external practice was present but was not accounted for accurately and an attentive radiation oncologist identified the issue during peer review.

- A patient had received prior radiation at an outside hospital and only a PDF of the prior radiation plan was available for review.
- The prior radiation plan had an initial treatment phase and a boost phase. The physicist used the PDF of the plan to reproduce the prior radiation dose in their treatment planning system which was then used to generate a composite with the new plan to evaluate for safety of organs-at-risk.
- During peer review chart rounds, a reviewing physician noted that the prior radiation plan had a lower dose than seemed appropriate given the treatment indication.
- On further review of the outside plan's PDF, it was realized that the prior plan contained another boost with 14 fractions of treatment.
- A new composite plan was generated to evaluate the safety of the current radiation plan.

GREAT CATCH!

This near miss event highlights some important takeaways:

1. When reviewing prior radiation plans, it is important to try to obtain a treatment summary, and to make sure the plan in the treatment planning system matches the prior radiation dose. This is especially important if there were multiple targets being treated, or multiple boosts during treatment.
2. When reviewing prior radiation plans, it is important to make sure the prior plan seemed appropriate for the clinical indication. If there is a discrepancy, a staff member should reach out to see if there was a reason for the discrepancy and confirm the records are correct.
3. This is an example of great quality peer review, where the reviewing physician looked at the prior plan in detail and asked questions when the prior plan did not look appropriate.

SAFETY CHECK

Is prior radiation information discussed during practice's peer review? If so, how and to what extent (e.g., is there a review of visual volumetric data to consider overlap?)?

Radiation oncologists lead the clinical team to deliver safe, high quality radiation treatment. They are extremely important in establishing and maintaining the safety culture within the practice and championing resources, training opportunities, and process changes needed to uphold patient safety. Only about 5% of safety events reported to RO-ILS were identified by a physician. However, based on an analysis of dosimetrically impactful events for a [2024 Themed Report](#), this percentage increased to almost 20% for the most critical events that impacted a patient's care. Given the wide reach, radiation oncologists are encouraged to actively participate and support **all** error discovery, learning and prevention. National Doctor's Day is one day in the year to celebrate physician contributions to incident learning, and RO-ILS thanks all radiation oncologists for their impact on patient safety.

At the national level, the American Society for Radiation Oncology (ASTRO) oversees the RO-ILS program and is a proud sponsor. Together, the sponsors and supporters enable U.S.-based practices to participate in the RO-ILS program for free, allowing shared learning and quality improvement.