

**February 2026 through August 2026 Therapeutic and Diagnostic Machine
Medical Reportable Events (MRE)**

October 2026 Meeting

Therapeutic		
1.	February 13, 2026	PA260002
	The patient was prescribed 20 Gy over four fractions to the T9-T10 vertebrae. Following treatment of the patient's final fraction on 2-13-26, review of cone-beam CT (CBCT) imaging for patient alignment by the physicist and attending physician identified a patient positioning error of one vertebral body level. Consequently, the T8 vertebra received unintended treatment, and the T10 vertebra was not treated. Due to this positioning error, only 60% of the PTV received the intended dose for the fourth and final fraction, and the dose delivered to 95% of the PTV was 0.25 Gy instead of the planned 5 Gy (dose to all or part of the intended site differs by >50%). Additionally, the dose delivered to 95% of the PTV for the entire treatment course was only 15.8 Gy instead of the planned 20 Gy (total administered dose to all or part of the intended site differs from total prescribed dose by >20%). Lastly, the T8 vertebra received an unintended dose of approximately 5 Gy (unintended overdose to normal tissues). Patient was discharged and no future palliative care where scheduled. This event was caused by radiation therapist error, likely due to three contributing factors: 1. Policy deviation: It appears that the therapist used imaging views that were zoomed in too closely, therefore missing the target alignment and deviating from department policy. 2. Distractions in the clinic: There were distractions in the clinic during the day of the error which are suspected to have caused the radiation therapists to make this mistake. A family member of another patient continually walked into the linear accelerator control room and interrupted the radiation therapists on multiple occasions. 3. Perceived time pressure: The clinical case load was approximately 90 minutes behind schedule. Corrective Actions: Policy Review/Patient family distractions handling	
2.	March 3, 2026	PA260003
	On 3/3/26, the patient acquired a pre-treatment CBCT to fine tune the set up using internal anatomy. An error in the film interpretation led the therapist to misalign the image. The resulting shifts caused the treated area to fall 1.5 cm anterior and 1.3 cm superior to the intended location, resulting in only 30% of the prostate receiving the prescribed fractional dose. Only 1 of 44 fractions were treated incorrectly. No modifications were made to the remaining treatment. Actions to be taken: A refresher on prostate anatomy and tips for improving prostate alignment. Update the reference CT and treatment plan during the course of treatment to decrease variation between the reference and daily image sites.	

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3.	March 17, 2026 PA260004 The patient was prescribed 30 Gy over ten fractions to the right transverse process of the T5 vertebrae, with a simultaneous integrated boost of the gross disease to 40 Gy. The treatment plan was prepared such that the prescribed 30 Gy covered 98.5% of the planning target volume (PTV), and 40 Gy covered 99% of the gross tumor volume (GTV). Following treatment of the patient's second fraction on 3-17-26, review of cone-beam CT (CBCT) imaging for patient alignment by the attending physician identified a patient positioning error of one vertebral body level. Consequently, the T6 transverse process received unintended treatment, and the T5 transverse process did not receive the intended dose. Due to this positioning error, the dose delivered to 98.5% of the PTV for the second fraction was only 0.29 Gy instead of the planned 3 Gy (dose to all or part of the intended site differs by >50%), and the dose delivered to 99% of the GTV was only 0.33 Gy instead of the planned 4 Gy. In order to prevent similar types of errors from occurring in the future, [facility] is implementing the following changes: 1. Physicians are creating a procedure with instruction specific for thoracic (T-spine) therapies. We expect this document to be finalized within 30 days of receipt of this report. This procedure will include: a. Physician responsibility for providing set up/alignment instructions in the prescription. b. Two pre-specified and physician contoured anatomical reference points, in narrow and wide FOV, will be required to align each treatment. 2. Physicians will monitor the next 10 thoracic cases to evaluate how the process works and adjust the new procedure, if needed. This review will be documented and available upon request for inspectors. 3. [Facility] will review the new procedure to determine if it is appropriate for implementation at other locations in the network.

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4.	May 5, 2026 PA260006 A patient was receiving their first fraction of 10 total treatments of 9MeV electrons to their right foot for Ledderhose disease. The covering physician was paged to the room to review and confirm the setup. This involved an extended SSD of 103.5cm source-skin distance, with 0.5cm bolus added, thus making the source-bolus distance 103cm. The setup without bolus placed was confirmed to be accurate, at which time the covering physician exited the room. The involved radiation therapist, then, dropped the patient support device (table) by what was later discovered to be about 13cm. This was done so that the therapist would have enough visibility to ensure that the bolus was properly placed in the correct position per the treatment plan. The bolus was placed, however, the table was never raised back up 13cm to the treatment position that the physician had earlier confirmed. The therapist exited the vault and erroneously delivered the entirety of that fraction, 300cGy, at the incorrect table position. The therapists noticed the error upon re-entry of the vault and immediately informed the covering physician and [Medical Physicist]. We worked with the dosimetry team to reproduce the erroneous conditions used for that fraction and re-calculated the plan. Upon evaluation, it was clear that the target site was underdosed by more than 50% of the prescribed fractional dose as specified in the written directive. The managing physician assessed the revised treatment plan and made the decision to retreat the fraction from yesterday, thus adding an entire fraction to the overall treatment course in an effort to account for the missed dose from yesterday. The error, while certainly a mistake and unexpected breakdown in our processes, does not pose any overall clinical detriment to the patient per the managing physician's assessment. After making the plan revision, the target site will receive full dose as prescribed, with increased maximum dose of roughly 4% relative to the initial plan. A consensus resolution for electron treatments going forward was identified and involves acquiring the table parameters on the linear accelerator console immediately following confirmation of setup by the physician. Then, if any change is made to the table position following the doctor's check, radiation delivery will be prevented by the linear accelerator interlock system until the correct table values are re-established.
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5.	May 1, 2026 PA260007 The patient was being treated with convention palliative fractionation treatment to the thoracic spine. The treatment consisted of five fractions of 400cGy for a total of 2000cGy. Isocenter was set at T6, and the treatment field was to include T5 though T7. During set-up of the patient for the third fraction, the therapists positioned the patient on the table, took kV images, verified positioning, and the treatment proceeded. During the physics chart check, the physicist noted that there may have been a misalignment in the patient positioning. The attending physician and physics were notified. The kV images were reviewed and compared to those at CT sim, and misalignment was confirmed. This was confirmed after fraction four had been delivered correctly that day. For the third fraction, the patient was aligned incorrectly (1 vertebral body superior of the intended target), leading to 400cGy being delivered to T4. The intended target of T6 was treated with the prescribed dose of 400cGy. The following clarification will be added to the treatment instructions: the therapist should verify agreement to C7 and L1 on the kV images, and the image may need to be zoomed out to confirm alignment.
6.	June 12, 2026 PA260010 The patient is being treated to the nose and forehead using electrons with daily visual confirmation, receiving at total of 50 Gy in 20 fractions to three sites using three separate plans. The electron cut out for the nose was modified to reduce its size and lower dose to the eyes and lenses. This modification occurred between the first verification (May 27, 2026) and the second verification (June 12, 2026) in the treatment planning system. This modification was not communicated to the therapist team and a new electron cut out was never made. The verification proceeded on June 12, 2026 with the original cut out and was approved by the physician. Treatment began on Monday, June 15 2026, using the original cut out. The error was discovered after the 4th treatment fraction on Thursday, June 18, 2026. We believe that this represents a MRE under the definition of an organ (eyes and lenses) receiving more than 20% of the total prescribed dose. Corrective Action: 1. The correct cut out was created and used for treatments starting on June 19, 2026. 2. The physician was present for verification of the new cut out on June 19, 2026. 3. A dosimetric evaluation was performed to assess the impact of the event on target coverage and normal tissue dose. No modifications to the remaining fractions were necessary. 4. The Authorized Medical Physicist and the Department Manager will review policy with the radiation oncology department staff.