April 2024 through August 2024 Therapeutic and Diagnostic Machine Medical Reportable Events (MRE)	
2024 Fall Meeting	
Therapeutic	
1.	A patient had a dose prescription to right partial breast with a total of 2600cGy delivered in 5 fractions, containing four fields. The collimator motor of the accelerator failed after the delivery of one treatment field. The repair took longer than 5 hours and the patient was not able to return that day to complete the remaining 3 treatments. The patient received 10% of the dose for that day. The remaining 3 fields were delivered the following workday. The patient will complete the full prescribed dose at the end of the course treatment. The third-party service team will be asked to pay closer attention to MLC system when performing routine preventative maintenance. 4/24
2.	A patient was planned to receive a post-operative radiation therapy to the bilateral necks with an integrated boost to the left tongue, however, the boost target was erroneously planned on the right side. This was discovered on routine clinical examination after 23 fractions when unexpected mucositis was observed on the right side. The patient's treatment was re-planned to deliver an appropriate oncologic dose to the originally intended target, with the operative bed receiving EQD2>58.06 Gy, however normal tissue received more radiation than intended. Additional fractions were added to ensure the correct target received an oncological appropriate dose, with the tumor bed receiving at least 58.06 Gy EQD2 with a total of 6 additional fractions added to the plan. The error in the case was a physician error, specifying the wrong side of the oral cavity to receive the higher dose level, then contouring the incorrect side, followed by approval of the erroneous plan. The next 5 head and neck cases treated by the Dr. will undergo an additional level of 1 on 1 MD peer review prior to treatment start. 5/24
3.	A patient was to receive their 3rd of 10 prescribed factions to the right femur with an anterior (AP)/ posterior (PA) beam orientation. Following initial alignment on July 3rd, the PA beam was treated with an incorrect 9.2 cm shift resulting in the wrong body site receiving a therapeutic dose of ~88 cGy. This resulted in an underdose to the RT femur of < 3% of the total prescription dose and an overdose to the LT femur of < 0.5%. The underdose to the RT femur is 29.3% for the daily dose and 5.9% for the weekly dose. The contributing factor identified was that the therapists overrode "red light" machine warning. Re-education for all radiation therapists regarding proper following of procedures when "red light" warnings are encountered. Therapists are not supposed to override a "red light" warning, they are supposed to get assistance from a supervisor, Physicist, or Radiation Oncologist. 7/24