October 2018 through October 2019 Therapeutic and Diagnostic Machine Medical Reportable Events (MRE)	
4 total events	
1.	A patient was receiving superficial radiation therapy for treatment of skin cancer. The patient was treated outside of the intended treatment volume that exceeded 20% of the total prescribed dose. Initial treatment positioned on surgical markings, however, as they faded, the treatment site was lined up with the demarcations that appeared on the patient after several treatments. The physicians were not confirming the site markings prior to treatment set up. Corrective action includes confirming treatment site location with photos in chart with patient prior to treatment. Skin markings to remain on treatment site throughout the course of treatment. The physicians will now verify site and markings prior to treatment.
2.	Patient was prescribed palliative treatment of 30 Gray to be administered over 10 fractions to spinal vertebrae T7 to T10. After 6 fractions it was discovered that the iso center used during therapy was not the intended therapy iso center and 16 Gray had been delivered to vertebrae T10 to L1. Incorrect treatment site occurred for 2 reasons: the patient was to be shifted twice from laser triangulation established during simulation. Only one shift was included in instructions to the therapists. Secondly, the therapy machine imaging that was approved by the prescribing physician was insufficient to clearly indicate where along the spine the treatment was centered. Corrective action will include numerical values for table shifts in addition to images in therapy plans. Additionally, dosimetrists will work with therapists during the first fraction treatment setup when multiple tale movements from iso center are required. Staff training occurred, and therapies of the spine will no longer be performed on the accelerator involved.
3.	The patient was to receive treatment to both breasts. During one scheduled therapy treatment, the right breast treatment was delivered correctly, and an incorrect shift was made which caused one of two treatment beams for the left breast overlap onto the right breast. The remaining beam was not delivered on that day. An overlapping volume of approximately 200 cc with the maximum dose being 470 centi-gray or 176% of the prescribed daily dose of 267 centi-gray. The therapist did not perform the correct table shift. Follow up actions include an independent check of the table shift by a second therapist, check of the light field on breast patients and reimage after a table shift greater than 1.5 cm.
4.	Patient was to receive 5 fractions of 10 Gray each to 2 different lesions in the liver. Isocenter was never changed for the 2nd lesion so 1 lesion received 10 fractions instead of five for a total of 100Gray. The number of isocenters will be specifically identified in the setup documentation and be included in the pre-treatment time out. The site setup terminology for multiple lesions treated at the same time, with 1 or more isocenters, will be revised. The medical physics double check of the plan generated by the dosimetrist will include all aspects of the plan, including confirmation of all required CBCT setups and isocenters. The treatment plan documentation will be improved to reduce the confusion about multiple or single isocenters.