Name of Policy:	Reinstating Clinical use After Equipment Repairs
Policy Number:	3364-134-112
Department:	Radiation Oncology
Approving Officer:	Chief Executive Officer - UTMC Professor & Chairman, Radiation Oncology
Responsible Agent:	Technical Manager, Radiation Oncology
Scope:	Radiation Oncology

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Effective Date: 12/1/2017

Initial Effective Date: 12/1/2017

x New policy proposal	_____ Minor/technical revision of existing policy
_____ Major revision of existing policy	_____ Reaffirmation of existing policy

(A) Policy Statement

Radiation Oncology equipment repair, maintenance, and upgrades will be evaluated by a QMP prior to being clinically used for patient imaging or treatment.

(B) Purpose of Policy

To provide guidelines for bringing the linear accelerator, or PET/CT unit back online after any repair, maintenance or software/hardware upgrades.

(C) Procedure

1. After any repair, maintenance, or software/ hardware upgrade that may affect the output of the linear accelerators, or quality of imaging equipment, a QMP must be notified to assess if any measurements or control tests need to be done prior to bringing the unit back online for clinical use. The QMP will evaluate the state of the machine, output, and other clinical and imaging parameters and/or verify constancy of the beam output or of imaging parameters before re-accepting the unit as clinically functional.
2. When a problem arises with the linac, the therapist will initiate a call to the in-house bio-med engineer and to the medical physicist to report the problem. A work order will be generated for the manufacturer through bio-med.
3. An email will be generated and sent to a pre-defined group including manufacturer representative, physicists, therapists, engineers, and department manager, delineating the problem to keep everyone apprised of the machine status.
4. If the repair is minor and will be made by bio-med (such as changing the motor on an MLC leaf or light bulbs, etc.), the bio-med engineer will report his assessment and repairs to a physicist which will in turn bring the machine back on line. The physicist will notify therapists when the machine is ready to return to service for clinical use. After hours, the QMP will contact either the lead therapist or department manager via "after hours" numbers provided or by written communication at the console.
5. If the repair requires a Varian engineer's time on the machine, the engineer, upon checking the status of the accelerator and determining what repairs are required, will contact the physicist to discuss plans for measurement/verification of the output parameters after repair.
6. If the physicist has to make any measurement prior to clinical use of the machine, the accelerator will not go online for clinical use until it is cleared by the physicist. The physicist will notify the therapists when the machine is cleared to return to service.
7. Field service reports will be copied to bio-med, physics and department manager.
8. The above procedure applies to any repair; maintenance, including PM; or upgrade that may affect the machine parameters such as beam output, flatness, symmetry or anything that may affect patient dose.

9. Preventative maintenance on the accelerator is scheduled through Varian and performed as per the manufacturer's requirement. Manufacturer's representative notify bio-med and physicist of scheduled PM.

Approved by: 11/28/2017 Changhu Chen, MD — Date Professor & Chairman, Radiation Oncology 6 Dec 2017 Daniel Barbee, RN, BSN, MBA — Date Chief Executive Officer - UTMC *Review/Revision Completed By:* *Michelle Giovanoli*	**Review/Revision Date:** 12/1/2017 **Next Review Date:** 12/1/2020
Policies Superseded by This Policy: N/A	