


| | | | | | | |
|--|--|---|--|--|---|---|
| Name of Policy: | <u>Machine Malfunction</u> |  | | | | |
| Policy Number: | 3364-134-27 | | | | | |
| Department: | Radiation Oncology | | | | | |
| Approving Officer: | Chief Executive Officer – UTMC Clinical Service Chief, Radiation Oncology | | | | | |
| Responsible Agent: | Manager, Radiation Oncology | | Effective Date: 3/1/2021 | | | |
| Scope: | Radiation Oncology | | Initial Effective Date: 7/10/1990 | | | |
| <table> <tr> <td><input type="checkbox"/> New policy proposal</td> <td><input type="checkbox"/> Minor/technical revision of existing policy</td> </tr> <tr> <td><input checked="" type="checkbox"/> Major revision of existing policy</td> <td><input type="checkbox"/> Reaffirmation of existing policy</td> </tr> </table> | | | <input type="checkbox"/> New policy proposal | <input type="checkbox"/> Minor/technical revision of existing policy | <input checked="" type="checkbox"/> Major revision of existing policy | <input type="checkbox"/> Reaffirmation of existing policy |
| <input type="checkbox"/> New policy proposal | <input type="checkbox"/> Minor/technical revision of existing policy | | | | | |
| <input checked="" type="checkbox"/> Major revision of existing policy | <input type="checkbox"/> Reaffirmation of existing policy | | | | | |

(A) Policy Statement

Safe and proper procedures must be followed in the maintenance of the treatment machines in Radiation Oncology.

(B) Purpose of Policy

To provide guidelines to ensure continued clinical operation and to protect the patients and employees in the event of an emergency or potentially dangerous situation.

(C) Procedure

In the event any malfunction occurs, immediately notify the Lead Therapist and the qualified medical physicist or her/his appropriate designee.

1. The linear accelerator/s simulator will automatically shut off with the loss of electricity. If a line power failure should occur while the systems are being used for patient treatment/simulation, the following steps should be followed by the Lead Therapist or designee:
 - a) Open the treatment room and enter the room.
 - b) Advise the patient to remain motionless.
 - c) Depending on the machine type, move table away from gantry and lower table. An uninterrupted power supply will allow lowering tables in both Edge and True Beam. If this is not possible, have additional personnel and patient assist with moving from the tabletop to the stretcher/floor.
 - d) Return to the console and record all pertinent information to be entered in the patient’s digital chart in Aria later. That will include gantry, collimator positions, MU’s delivered, table height, etc.
 - e) When power has been restored, perform the initial start-up and daily check out procedures to verify proper operation of the machine.
 - f) Return the patient to the treatment room and set up in accordance with the treatment plan.
 - g) Set the required remaining monitor units using the “complete partial treatment” in Aria.
 - h) If equipment is not restored within a reasonable length of time, the patients will be dismissed and they will be contacted and rescheduled when all systems are operational.
 - i) Personnel will remain with all stretcher and/or wheelchair patients until the appropriate transportation services arrive.
2. Notify Technology Support (ext. 4899). The following information should be provided:
 - a. Piece of equipment that is malfunctioning
 - b. Your name, date, time
 - c. Describe what is malfunctioning
3. Log error description and code into Excel Spreadsheet
4. Do not continue to operate or attempt to repair equipment

5. Medical physicists, department manager and bio engineering staff will meet quarterly to review records and trend analysis on machine downtime and service reports.
6. The medical physicist will take appropriate action and notify the therapist when the machine may be placed back into service.

| | | |
|---|-------------------|-----------------------------------|
| Approved by: | | Review/Revision Date: |
| <u>/s/</u> | <u>03/09/2021</u> | 10/1992 |
| Mersiha Hadziahmetovic MD | Date | 1993 |
| Clinical Service Chief, Radiation Oncology | | 2/1995 |
| | | 1996 |
| | | 10/1997 |
| | | 4/1999 |
| | | 3/2002 |
| <u>/s/</u> | <u>03/12/2021</u> | 2/2007 |
| Richard P. Swaine | Date | 4/22/2010 |
| Chief Executive Officer -UTMC | | 9/1/2013 |
| | | 8/1/2016 |
| | | 2/1/2018 |
| | | 2/1/2021 |
| <i>Review/Revision Completed By:</i> <i>Michelle Giovanoli</i> | | |
| | | Next Review Date: 2/1/2024 |
| Policies Superseded by This Policy: 38-027 | | |