

RADIATION THERAPIST CLINICAL GUIDELINES

Policy:

To provide guidelines to ensure that all radiation therapist have a complete understanding of their clinical responsibilities and work expectations.

1. All radiation therapists are responsible for the accuracy of treatment delivery.
2. Radiation therapists will keep equipment in good working order and will report any equipment malfunctions to the manager and physicist. Daily warm-up and QA on the equipment will be performed and documented.
3. Therapist will adhere to clinical guidelines listed below.

Procedure:

1. Patient load will determine length of treatment day and shift times. All breaks and lunches are to be scheduled so two technologists are on the Linear Accelerator at ALL TIMES. The exception will be when there is an extremely heavy patient load, when there is a staff shortage, or during after hour procedures (emergency call-backs).
2. To accommodate an extremely heavy patient load, the treatment day will be lengthened. Shifts will be staggered so that only one technologist is on duty at the beginning of the treatment day and at the end. The bulk of the patient load will be scheduled in the middle of the treatment day when all shifts overlap and there is full staff.
3. The treatment day will begin right after a.m. machine warm-ups and checks. After all patients have been treated, the therapist will:
 - a. clean work and beverage area
 - b. update schedule on IMPAC for next day procedures
 - c. complete department close-down procedures and locking of department
4. Quality Control checks on the equipment must be performed on a daily basis. Prior to any treatments, the accelerator will be warmed up according to the guidelines set by the vendor. Beam output will be checked with the beam analyzer prior to any treatments delivered. Any unusual conditions will be reported to the physicist, physician or manager prior to any treatments given.
5. Each technologist will be responsible for the deliverance of proper treatments each day as ordered by the physician. It is mandatory to have a prescription from the physician before delivering any dose. Under no circumstances can a technologist administer a radiation exposure without this hand-written prescription and approved prescription in IMPAC.
6. Treatment or monitor units must be accurately set. If a wrong dose is delivered, report this to supervisor immediately.

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7. It is your responsibility to keep the patient well marked. The patient should have tattoos at the central ray and on the outer edges of the field being treated. Tattoos are placed on the patient after required films have verified the area.
8. Mark three points on the patient's skin, given by lasers, to make sure the patient is set up the same way each day. By matching up these points each day, there will be no rotation of the body at all. This is mandatory to precise reproduction of the set-up and will be done before delivering any dose.
9. Two people will check a calculated dose before it is given to a patient. If by any chance you should need help, call either the chief technologist or the physics group. After you are finished treating the patient, place the chart in a separate stack so the physicist can then check it. It is always best to have as many checks as possible as everyone may make errors.
10. Take weekly port films for verification of the clinical set-up. Fields may shift and this should be corrected as soon as possible.
11. After the patient has been simulated, always take pre port films on the first day prior to delivery of treatments. If by chance the patient is simulated on the treatment table on the first day of treatment due to an emergency situation, the simulation film will be taken on the next day prior to treatment.
12. Head and Neck patients should have aquaplast mask immobilization devices or in emergency procedures, have their heads taped each day for immobilization. The same head rest should also be used each day. Please make note in the chart of the apparatus to be used.

All patient immobilization devices should be indexed to the treatment couch by using the indexing bars. If an immobilization device cannot be indexed (ex. Belly board or certain vac-locs), they should abut an indexing bar on the table. Each patient's indexing setup should be put under "field set up" in IMPAC for each treatment field.

13. The patient's position is most important. Always have the arms and legs in the simulated position.
14. Make sure that the patient has signed the radiation therapy consent form prior to any treatment.
15. Keep the treatment room clean at all times. There should be clean laundry for each patient, and the table should be wiped with approved cleaner after each patient. The room should be stocked with necessary items when needed.

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16. After all port films, transfer images in the IMPAC data base link to the appropriate patient. For any developed port films, pull the patient's film jacket or make one if needed. Keep the patient's film available during the course of treatment. Once the patient has completed therapy, the films will then be filed in the permanent files for future use if necessary and for legal documentation.

The Vidar VXR-16 Scanner should be used to import developed port films into IMPAC. Open the patient in Multi-Access. Under file, select "Import/Export" then DFI Polling. Run film through the Vidar Scanner. Make sure the patient's name is selected and save.

17. The therapist should carry out communicating patient's conditions to the nurse or physician. Here are a few problems that arise during the course of therapy and should be dealt to provide quality care. Clinical indicator to be aware of which should be communicated to physician;
 - a. Nausea
 - b. Diarrhea
 - c. Erythema - extreme moist desquamation - reddening of the skin
 - d. Malaise - no strength, general bad feeling
 - e. Anorexia - loss of appetite.
 - f. Cachexia -weight loss
 - g. Dysphagia - difficulty in swallowing
 - h. Pruritis - if the patient continues to rub or scratch the area after you have advised him no to, please inform the nurse of this problem.
 - i. Hemoptysis - coughing up blood
 - j. Dyspnea - difficulty breathing
18. Each day of treatment, the therapist will document the patient's condition under "Therapist Daily Patient Assessment" located in the treatment chart.
19. All therapists should treat our patients with care and kindness. Radiation treatments are very trying for a patient that is extremely ill and depressed. Our job is to give the patient the prescribed treatment ordered by the physician and to make it as easy for them as possible. Scheduling of the patients is most important. No one should have to sit and wait for a long period of time. The first day is always long and tiring for the patient, but every day after that should take less time and be much easier. Good customer service is mandatory.
20. Quality Control checks must be performed daily on the equipment used to provide daily patient care. Prior to daily use, all equipment will be warmed up according to department guidelines, beam output will be checked by beam analyzer, QA check will be performed on all equipment.

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Any unusual conditions will be reported to the physicist, manager, or physician prior to performing any treatment procedures.

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