

**HIGH DOSE RATE REMOTE AFTERLOADER
OPERATING POLICIES**

Policy:

To provide guidelines to ensure that the HDR procedure are performed within the department guidelines and in accordance with state regulations.

Procedures:

1. HDR procedures are to be performed by radiation oncologist, within radiation regulations, according to policies and procedures.
2. The HDR source resides in the HDR vault. New sources, before source changes, or old sources after source changes will be secured in the hot lab. The HDR unit will not be moved without the approval of the Medical Physicist and Radiation Safety Officer.
3. Only trained HDR operators and Vendor service personnel are allowed to operate the HDR unit. The program key will be in the console only when the HDR operator or service personnel are in attendance.
4. The treatment room door will be posted at all times with a “Caution Radiation Area” sign and must be closed when room is not in use
5. Emergency procedures will be posted at the console and inside the treatment room at all times.
6. All equipment necessary to carry out the emergency procedures will be immediately available in the HDR treatment room.
7. Training of personnel:

Staff members taking part in HDR applications will be trained by experienced personnel in the use of the unit and in emergency procedures to return the source to a safe condition. Training will be provided and documented before a staff member will be allowed to take any specific responsibility in an HDR application. Retraining will be provided at intervals not to exceed 12 months.
8. Specific responsibilities and staff members who may qualify to take these responsibilities include:
 - a. Writing of the prescription—by an authorized user (radiation oncologist);
 - b. Approval of the applicator placement based on localization films—by an authorized user (radiation oncologist);

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Radiation Oncology
Proc. 19.8.9**

- c. Generation of the treatment plan—by a physicist and/or a dosimetrist;
 - d. Approval of treatment plan by (radiation oncologist)
 - e. Verification that the treatment plans is consistent with the prescription—by an authorized user (radiation oncologist);
 - f. Operation of the HDR treatment unit—by a trained HDR operator, licensed by the LSRT.
8. No HDR procedure will be conducted if there is any risk that a decoupled or jammed source cannot be removed expeditiously from the patient and placed in a shielded condition.
 9. No patient will be treated on the HDR until a written prescription is complete, including date, site, and total dose.
 10. During all HDR treatments, the authorized user, the oncology nurse and either a physicist trained in the use of the HDR will be physically present (within audible range of normal human speech).
 11. All staff members assisting in an HDR treatment will wear a TLD body badge and a ring badge. The physicist, physician and nurse will wear a calibrated audible dosimeter in addition to the TLD monitors normally worn in the event they need to enter the treatment room when the source has not been retracted.
 12. No one other than the patient will be allowed in the treatment room while the source is exposed. The HDR operator will ensure that all personnel have exited the room before administering the treatment.
 13. No patient will be treated on the HDR unit until the Pretreatment QA Report for that day has been completed and reviewed.
 14. No patient will be treated on the HDR after a source change until the Pretreatment QA Record and the Source Change Checklist is complete.
 15. No patient will be treated after a source change until the new source is calibrated.
 16. Survey patient before procedure for background radiation.
 17. Immediately after completion of the procedure, before removal of the patient from the treatment room, the HDR operator will make a radiation survey of the patient and the empty applicator with a survey meter. The survey will be documented on the Treatment QA Checklist and Radiation Survey

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Radiation Oncology
Proc. 19.8.9

18. Each HDR treatment will be documented in the Source Utilization Log Book. The radiation safety file and the patient's radiation therapy chart will contain complete documentation of the procedure.

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