



January 20, 2012

## Handlers of Radiation Therapy Equipment Good Practices to Reduce Misadministrations

*It is expected that recipients will review the information in this notice for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. You can use an alternative approach if the approach satisfies the requirements of the applicable regulations. No specific action or written response is required.*

Dear Handler of Radiation Therapy Equipment:

According to ODH's records, your facility is registered as possessing radiation therapy equipment. Please ensure the following message is relayed to the Individual Responsible for Radiation Protection at your facility and addressed with all employees responsible for radiation therapy treatments.

According to rule 3701:1-67-12(B) of the Ohio Administrative Code, a handler shall report any event in which the administration of radiation from therapy equipment involves the wrong patient; the wrong treatment; the wrong treatment site; the calculated weekly administered dose differs from the weekly prescribed dose as prescribed in the treatment plan by more than thirty per cent; the calculated total administered dose differs from the total prescribed dose as prescribed in the treatment plan by more than twenty per cent of the total prescribed dose; or the calculated total administered dose differs from the total prescribed dose in the treatment plan by more than ten per cent of the total prescribed dose for treatments consisting of three or fewer fractions.

In 2011, ODH received fifteen reports of misadministrations the majority of which involved the wrong patient or wrong treatment site. ODH conducted inspections at each of these facilities and found the following most common reasons for the misadministrations:

- Failure to properly verify patient set-up and treatment protocols;
- Failure to properly identify the patient;
- Failure to properly identify the correct patient set-up markings; and
- Radiation therapists performing "override" functions without verifying information with a physicist or physician.

As a result of the inspections, corrective actions submitted by the registrants and discussions with the registrants, ODH has developed a list of good practices to help reduce the chance of these types of misadministrations:

- Assure annual clinical competencies of radiation therapist are completed by qualified individuals in supervisory positions.
- Implement a strict patient identification, set-up and treatment plan verification policy requiring 2 therapists to verify patient identification, patient set-up and treatment plan verification prior to patient treatment;
- When the radiation therapist calls out the patient's name have the patient state back to them, "their name and DOB";
- Consider a wrist-band for out-patient identification similar to in-patients;
- If possible, program the "Record and Verify System" to include 3 patient identifiers and requirements for the therapist to check-off two out of the three identifiers before the patients' treatment plan will come up.
- Implement a policy to include a time out prior to pressing the treatment button to verify patient information and treatment protocol on the computer screen. When possible, use computer ALERT screens to assist in this process.
- Implement a strict override policy that does not allow one person to override the computer system without verification from a second individual;
- Implement a patient set-up marking policy to distinguish between previous (old) set-up markings and current set-up markings on the patient; and simulation set-up markings from post treatment planning set-up markings on the patient;
- For reverse orientation (patient positioned in gantry opposite the normal position), procedures should be implemented that include programming computer ALERT screens. These ALERT screens appear automatically on the treatment monitors notifying the therapist of the reverse orientation. The therapists must acknowledge the alert screen and click "OK" in order for the treatment procedure to start.
- Conduct chart reviews with all personnel involved in the patient's treatment; and
- Review and discuss treatment policies regularly at department meetings.

If you have any comments, or further suggestions that may result in reducing the occurrence of a misadministration, please contact ODH at [bradiation@odh.ohio.gov](mailto:bradiation@odh.ohio.gov). I am confident that by working together we can reduce the occurrence of misadministrations and improve patient safety.

Sincerely,



Michael J. Snee, Chief  
Bureau of Radiation Protection