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INDIANA UNIVERSITY
MEDICAL CENTER

RADIATION SAFETY OFFICE
Clinical Building 159
541 Clinical Drive
Indianapolis, IN 46202-5111
(317) 274-4797

13-02752-08

March 23, 1993

Charles E. Norelius, Director
Division of Radiation Safety
and Safeguards
U.S.N.R.C. - Region III Office
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Norelius:

On February 17, 1993, we responded to a Notice of Violation that accompanied your letter dated January 27, 1993. Unfortunately, we overlooked the requirement to respond to the three areas of concern identified in the inspection report (Report No. 030-09792/92001) which was also attached to the aforementioned letter. Attached please find responses to those areas of concern.

We apologize for the delay in submitting our response. Should you have any additional questions, please do not hesitate to contact this office.

Sincerely,

Mack L. Richard

Mack L. Richard, M.S.
Radiation Safety Officer

Attachments: 1

cc: G. Bepko
W. Daly
B. Batteiger
N. Hornback

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RESPONSES TO INSPECTION REPORT CONCERNS

The responses to the three concerns specified on page 2 of the inspection report are provided in the same order as listed on said report.

1. It is the goal of the physics staff to check all calculations before they are used for patient treatment; however, such checks are not always possible, usually for one of two reasons. Occasionally, a member of the physics staff is not immediately available to do an independent check before the treatment is initiated, particularly for emergent treatments. At other times, patient measurements are made at the time the patient is positioned for his/her first treatment. In this case, the treatment is usually given as soon as the calculations have been completed. In either of these cases, every attempt is made to have the calculations checked before the second treatment is administered.

The aforementioned procedures are not altered when there are four or fewer treatments. In fact, when staff is available, the treatment is delayed a few minutes, when possible, while the calculations are checked. However, when no physics personnel are available to verify the calculations, treatment cannot be delayed for long periods of time. This most often occurs when the patient is treated without being previously scheduled (i.e. the patient is seen for the first time and treated immediately). It also occurs in emergent cases where the patient treatment commences near the end of the day or after normal working hours.

It is important to balance these checks (and the delays which may occur in attempting to perform them) with the comfort and the care being provided to the patient. Careful judgment must be exercised to prevent compromising patient care for the sake of performing such calculational checks.

2. The assumption that there is a "lack of sensitivity" to deviations from a "standard" treatment plan of 300 cGy (rads) per fraction for brain treatments is an over-generalization. There are brain treatments delivered accurately on the ^{60}Co unit for which the tumor dose is not 300 cGy. The "lack of sensitivity" may have been related to way the prescription (written directive) was written and/or interpreted rather that the assumption that this was a "standard" brain treatment.

3. In the past, the radiation oncology physicians would write prescriptions (written directives) in a narrative format. That being the case, some physicians might indicate the total dose followed by the dose per fraction while others might write the same prescription in the reverse order. Members of the Radiation Oncology Department including physicians, therapists, and physicists have reviewed the layout of the form utilized by the physicians for writing prescriptions. Based upon that review, the form has been revised into a columnar format. The intent of this revision is to provide a more consistent method of writing prescriptions, thus reducing the likelihood that individuals reading said prescriptions will misinterpret them.