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DNMS

Subir Nag/CA/KAIPERM
03/23/2012 08:42 AM

To "Gaines, Anthony" <Anthony.Gaines@nrc.gov>
cc
bcc
Subject NRC Consultant Report for HDR Medical Event at Benefis

Dear Mr. Gaines:
I have completed my evaluation of the medical event at Benefis Hospital and am attaching my report.
In summary:
1. I agree with the licensee's report why the event occurred.
2. I agree with the licensee's report that there is minimal adverse health effects expected in the area unintentionally exposed.
3. I agree with the licensee's corrective action that future esophageal treatments are to be done so that the HDR catheter is first introduced into the NG tube and the combination of HDR catheter and the NG tube is introduced into the patient as a whole.
4. I additionally suggest that the licensee perform a fluoroscopy (or scout view on CT scan) with dummy radioopaque sources in the HDR catheter to confirm source position before treatment. They should not proceed with treatment if they cannot definitively identify the dummy radioopaque sources on the xray, fluoroscopy or scout view.
The signed original report is being mailed. Kindly let me know if you require any further clarifications.
Subir

Subir Nag, MD, FACR, FACRO
Director of Brachytherapy Services
Kaiser Permanente Radiation Oncology
3800 Homestead Road
Santa Clara, CA 95051

Clinical Professor (Affiliated),
Department of Radiation Oncology,
Stanford School of Medicine, Stanford, CA
(408) 851-8085 Direct Line
(408) 851-8001 Front Office
(408) 820-0088 Beeper
(408) 851-8010 Fax
e-mail: subir.nag@kp.org

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MEDICAL CONSULTANT REPORT (SHORT FORM)
(To be completed by medical consultant, if site visit is not necessary)
Official Use Only

Medical Consultant Name: Subir Nag, MD **Report Date:** March 23, 2012

Signature: _____

Licensee's Name: Benefis Hospitals

License No.: 25-12710-01 **Docket No.:** 030-02404

Facility Name: Benefis Hospitals **Incident Date:** Jan 5, 2012

Estimated Dose to Individual or Target Organ: 700 cGy to 1 cm

Probable Error Associated with Estimation: Minimal

Prescribed Dose (Medical Event Only): 700 cGy to 1 cm

Method Used to Calculate Dose: Treatment Planning Computer

General Description of Records Reviewed: NRC incident report EN47579, written directive, radiation oncology consultation, treatment records, CT scan, dosimetry, dose volume histogram.

Individuals contacted during investigation: Andrew Andreassen, Medical Physicist; Dr. Jeffrery Stephenson, MD, Radiation Oncologist.

Description of Incident: A patient of esophageal cancer was being treated with 700 cGy HDR through a nasogastric tube on Jan 5, 2012. The HDR catheter was inserted into the NG tube but did not pass through the bend at the posterior part of the nasopharynx. Hence the nasopharynx was treated instead of treating the esophagus. The licensee has taken corrective steps and notified the referring physician and patient.

Consultant's Opinion and Recommendations:

1. I agree with the licensee's report why the event occurred.
2. I agree with the licensee's report that there is minimal adverse health effects expected in the area unintentionally exposed.
3. I agree with the licensee's corrective action that future esophageal treatments are to be done so that the HDR catheter is first introduced into the NG tube and the combination of HDR catheter and the NG tube is introduced into the patient as a whole.
4. I additionally suggest that the licensee perform a fluoroscopy (or scout view on CT scan) with dummy radioopaque sources in the HDR catheter to confirm source position before treatment. They should not proceed with treatment if they cannot definitively identify the dummy radioopaque sources on the xray, fluoroscopy or scout view.

Why Site Visit is Not Required:

1. The description and cause of the adverse event are clear.
2. I have talked with the radiation oncologist involved in the case and have obtained required dosimetric information. I have reviewed the dosimetry on this patient and confirmed the medical event. I have also discussed the corrective action with the radiation oncologist.
3. The licensee has informed the appropriate persons/officials.

Assessment of probable deterministic effects of the radiation exposure on the individual:

No significant adverse effect since the subsequent treatment plan was modified and the patient's treatment is not compromised.