

ATTACHMENT

The Christ Hospital

2129 Auburn Avenue, Cincinnati, Ohio 45219; (513) 369-2000

June 28, 1985

Mr. Donald Sreniawski
Materials Licensing Board
Region III, USNRC
799 Roosevelt Rd.
Glen Ellyn, IL 60137

LICENSE NO.: 34-03831-02

Dear Mr. Sreniawski:

The following report is submitted in accordance with the requirement of 10 CFR 35.42(b) for reporting a brachytherapy misadministration. Telephone notification was provided by the Radiation Safety Officer, Clifford Born.

REFERRING PHYSICIAN: Dr. M. Brueggemann

DESCRIPTION OF PROCEDURE:

On June 17, 1985 a catheter was placed in the left upper lobe bronchus for persistent occluded carcinoma utilizing a bronchoscope. A ribbon containing 12 10 mCi Ir-192 seeds was inserted in the catheter using fluoroscopy for placement. Due to unusual circumstances, the normal procedures were not followed and inadvertently the patient received a radiation dose greater than 10% of the prescribed dose.

EFFECT ON THE PATIENT AND FOLLOW-UP PLAN:

Patient tolerated the procedure quite well. Patient was seen on June 27, 1985 at one week after the procedure. His general condition was stable. He thought the shortness of breath was somewhat improved, and he had not coughed up blood over the last 4-5 days. Physical examination showed no change as was his repeated chest x-ray, which showed persistent fibrosis and density at the left superior paramedial region. Patient is to be followed at one week intervals for a while until we can be sure that he has not developed complications from the treatment. Repeated bronchoscopy is planned as part of follow-up in about 1-2 months. (Dr. E. Saenger was contacted at the request of the N.R.C.)

8507050209

XA

June 28, 1985
Page 2

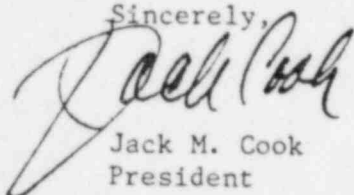
ACTION TAKEN TO PREVENT RECURRENCE:

A hospital policy for the Department of Radiation Medicine, Radioactive Material Implant Procedures was implemented by the Radiation Medicine Department on June 19, 1985 and will be presented to the Medical Staff for approval. A copy is enclosed. All authorized users performing these procedures at The Christ Hospital will be informed in writing of this policy and will be required to follow it.

The patient's referring physician and family were notified.

If clarification of this report is needed, please contact the Radiation Safety Officer, Clifford Born.

Sincerely,



Jack M. Cook
President

JMC/aml

enclosure

cc Dr. S. Ploysongsang
Dr. M. Brueggemann
Dr. R. Scott
Clifford G. Born
Jim Tomaszewski

Approved by *[Signature]*
Supersedes _____
Effective date _____

Originated by Clifford G. Born
Reviewed by Ralph M. Scott, M.D.
Edited by _____

SUBJECT: RADIOACTIVE MATERIAL IMPLANT PROCEDURES

1. Physician implant prescriptions will be written.
 - a. For radioactive material procedures where the activity is purchased from a vendor, prior to ordering the desired material, the physician will complete the following items on the Implant Dosimetry Sheet:

I-125: tumor dimensions, length, width and/or average.
(Appendix I)

Ir-192: volume: length, width, cm³ total prescribed dose,
(Appendix II) at depth desired dose rate, at depth

plane : number, width, length, area (cm²). total
prescribed dose, at depth desired dose
rate, at depth

At time of loading, physician will complete following items of
Intracavitary/Interstitial Summary Sheet Appendix III:

DOSIMETRY:

NO., TYPE and MG/SOURCE, TOTAL MG/HRS,
prescribed; and/or TOTAL DOSE prescribed.

DIAGRAM/GEOMETRY:

Signature, date

- b. For Cs-137 procedures utilizing hospital owned sources, prior to source loading, the physician will complete the following items on the Intracavitary/Interstitial Summary Sheet Appendix III:

DOSIMETRY:

NO., TYPE, and MG/SOURCE, TOTAL MG/HRS,
prescribed; and/or TOTAL DOSE prescribed.

DIAGRAM/GEOMETRY:

Signature, date

2. For new procedures, the Implant Dosimetry Form and the Intracavitary/Interstitial Summary Sheet will be reviewed by the Medical Director upon completion of the form.
3. After the physician's written prescription is completed, the dosimetrist or physicist will within a half working day complete TOTAL TIME and DOSE RATE items on Intracavitary/Interstitial Summary Sheet and will provide this information to the radiotherapist in writing. Where isodose curve data is essential in determining prescription parameters (eg. Ir-192 temporary implant), the computer plan will be completed within a half working day from time radiographs are completed.
4. Radiographic confirmation of source distribution will be obtained for all radioactive material procedures. Computer documentation of dose distribution will be provided at the request of the radiotherapist.

DOSE RATE:

DOSE RATE: _____

DEPARTMENT OF RADIATION MEDICINE

Appendix I
THE CHRIST HOSPITAL

IMPLANT DOSIMETRY (I-125)

PATIENT NAME: _____ TYPE IMPLANT: _____

PHYSICIAN: _____ SCHEDULED DATE: _____

CALCULATIONS:

TUMOR VOLUME DIMENSIONS:

AVERAGE DIMENSION:

ACTIVITY REQUIRED IN mCi COMPENSATED:

SEED STRENGTH:

NUMBER OF SEEDS REQUIRED:

SPACING ALONG NEEDLE:
ON BACK

SPACING BETWEEN NEEDLES
ON BACK

ORDER:

NUMBER OF SEEDS _____ ACTIVITY _____
DATE _____

IMPLANT:

NUMBER OF SEEDS _____ CORRECTION FACTOR _____
DATE _____ ACTIVITY _____
NUMBER OF SEEDS TO STORAGE FOR DECAY _____

SIGNATURES:

PHYSICIST/DOSIMETRIST: _____ DATE: _____
PHYSICIAN: _____ DATE: _____

IMPLANT DOSIMETRY (Ir-192)

PATIENT NAME: _____ TYPE IMPLANT: _____

PHYSICIAN: _____ SCHEDULED DATE: _____

DATE: _____

VOLUME: LENGTH _____ WIDTH _____ GEOMETRY (cm³) _____PLANES: NUMBER _____ WIDTH _____ LENGTH _____AREA, cm² _____DOSE: TOTAL PRESCRIBED DOSE _____ @ DEPTH _____ cm

DESIRED DOSE RATE _____ @ DEPTH _____ cm

mg-hrs. REQUIRED _____ PER 1000 RADS _____ RX _____

mg REQUIRED = _____

GEOMETRY: ON BACK

ORDER: (PRE-IMPLANT) DATE: _____

NUMBER OF RIBBONS _____ NUMBER SEEDS/RIBBONS _____

SEED SPACING _____ ACTIVITY PER SEED _____

TOTAL # SEEDS _____ TOTAL ACTIVITY _____

DATE RECEIVED _____

ACTIVITY/SEED _____

IMPLANT: (POST-IMPLANT) DATE: _____

TOTAL SEEDS _____ TOTAL ACTIVITY _____

DOSE RATE _____ (CORRECTION FACTOR= _____)

TIME IN _____

TIME OUT _____ } TOTAL HOURS = _____

SIGNATURES:

PHYSICIST/DOSIMETRIST: _____ DATE: _____

PHYSICIAN: _____ DATE: _____

INTRACAVITARY/INTERSTITIAL SUMMARY SHEET

PATIENT: _____ RADIOTHERAPIST: _____

DIAGNOSIS: _____ APPLICATOR: _____

ISOTOPE ORDERED FOR _____
(DAY) (DATE) (TIME)

DOSIMETRY:

NUMBER AND DESCRIPTION OF SOURCES

NO	TYPE	MCI/SOURCE	TOT MCI	MGM/SOURCE	TOT MGM
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

TOTAL MCI _____ TOTAL MGM _____

TIME IN _____
(DAY) (DATE) (TIME)TIME OUT _____
(DAY) (DATE) (TIME)

TOTAL MG-HRS, PRESCRIBED _____ DELIVERED _____ TOTAL TIME _____

DOSE RATE _____ AT _____ TOTAL DOSE, PRESCRIBED _____ DELIVERED _____
(LOCATION)

DIAGRAM/GEOMETRY:

X-RAYS CHECKED BY: _____
COMMENTS: _____

SURVEY AND ACCOUNTABILITY OF SOURCES:

*TEMPORARY IMPLANT:

NUMBER OF SOURCES OR SEEDS RETURNED _____
INVENTORIED BY _____

*PERMANENT INTERSTITIAL IMPLANT

NECESSARY INSTRUCTIONS GIVEN TO PATIENT YES _____ NO _____

SURGERY MONITORED _____ BY _____ DATE _____

ROOM _____ BY _____

PATIENT _____ BY _____

SIGNATURES:

PHYSICIST/DOSIMETRIST: _____ DATE: _____

PHYSICIAN: _____ DATE: _____