

BAYSTATE MEDICAL CENTER

1879

Office of the President  
Memorandum

TO: Suresh M. Brahmavar, Ph.D.  
FROM: Harry C.F. Gifford, President *H. Gifford*  
SUBJECT: Director, Medical Physics & Radiation Safety  
DATE: August 22, 1980

The Director of Medical Physics and Radiation Safety is responsible for the effective administration of the Medical Center's radiation safety and medical physics programs to ensure ongoing prevention of radiation safety problems to assure the continued protection and safeguarding of patients and hospital employees.

Within the Department of Radiology and under the direction of the chairman of the Department, you are responsible for the organization, development and implementation of the Medical Physics and Radiation Safety service. You are also responsible for the interpretation and proposed implementation of regulatory standards as promulgated by the Nuclear Regulatory Commission and other appropriate agencies.

Other responsibilities may be found in the appropriate Nuclear Regulatory Commission licensing documents.

HCFG:bp

Nursing Care of Patients Receiving P-32A. Radioactive Phosphorus-32 in Therapeutic Doses

- a. Forms and Uses: For polycythemia vera, leukemia, and metastatic bone disease, it is given orally or intravenously in a sodium phosphate solution. For malignant effusions and treatment of peritoneal seedings, a colloidal suspension of chromic phosphatae is used.
- b. General Principles:
  1. If P-32 (Radioactive Phosphorus) is given parenterally in either form, there is no gamma radiation hazard and no special precautions are necessary, as far as safe time and distance are concerned. Very soft X-rays are produced and can be measured but they are a minimal hazard to nurses and to hospital staff.
  2. If the P-32 is given orally there is no radiation hazard unless the patient vomits the first 24 hours. If the patient vomits, please follow instructions given under "Special Instructions".
  3. If the dose of P-32 is high (more than 5 millicuries in single dose), it will be necessary to collect the patient's urine for 48 hours. Instructions will be written in the patient's orders; a gallon jug or jar can be used. Send to the laboratory every 24 hours. This is not necessary if colloidal chromic phosphate is used in peritoneal or pleural cavities.
  4. Bed baths given by the nurse should be omitted for the first 48 hours unless specially ordered. This doesn't apply to the use of radioactive chromic phosphate.
  5. Nurses may spend whatever time necessary near the patient for the necessary nursing care. A bedside tag will be issued and must be displayed. An area monitor sheet will also be placed in the patient's hospital chart.
  6. Patients are allowed visitors in accordance with the usual hospital rules.
  7. No special precautions are needed for sputum, dishes, instruments or bedding. Triple flush of bedpans or toilet after a bowel movement.
- c. Special Instructions:
  1. If P-32 has been given orally, and the patient vomits, within the first 24 hours, the vomitus and soiled clothing, bedding or utensils should be isolated. Wear rubber gloves to do this and CALL the Nuclear Medicine Department. Drop paper toweling on vomitus to absorb as much as possible. Place towels on newspaper or in plastic trash bag.

c. Special Instructions (cont'd)

2. The urine can be collected in non-essential containers, (gallon jugs or jars). There is no danger from this urine as long as it is kept in these containers. In case of urine spill, call the Nuclear Medicine Department. Drop paper toweling on spill immediately.  
DO NOT MOP IT UP!!!

3. If there is any question of contamination of bedding, furniture, instruments, clothing, floor, utensils, etc., immediately call Suresh M. Brahmavar, Ph.D., who will monitor the area for radiation hazards and determine what protection or disposal methods are indicated.

4. If the surgical dressing becomes damp or bloody because of drainage or leakage from the puncture wound, don't touch the dressings but call Suresh M. Brahmavar, Ph.D. Keep all wet dressings (together with all instruments or utensils used) in a plastic bag on the patient's bed or table and don't discard until so directed by Radiotherapist.