

BROOKHAVEN NATIONAL LABORATORY

ASSOCIATED UNIVERSITIES, INC.

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Medical Department

Stated Goal (PL96-205): To provide a program of medical care and treatment for any illness or injury which may be the result of the nuclear testing program.

Implied Goal: To determine, insofar as possible, which illnesses are radiation-related.

CHRONOLOGY OF THE MEDICAL PROGRAM OF THE MARSHAL ISLANDS STUDY

- 1954: Exposure to Bravo fallout.  
Depression of blood counts.  
Skin burns and depilation.
- 1954-1962: Subtle abnormalities persist, including bone marrow changes, some lingering blood count depression, delayed growth in several children, increases in chromosomal abnormalities, and slight depression in immunoglobulin levels.
- 1963: Development of thyroid nodules first noted; hypothyroidism found to be the cause of impaired growth.
- 1965: All Rongelap-exposed persons started on thyroid hormone supplementation.
- 1972: Acute leukemia diagnosed in 19-year-old male.  
Resident physician stationed in Kwajalein.
- 1976: First pituitary tumor diagnosed.
- 1982: Current areas of concern:
1. second pituitary tumor found,
  2. possible depression of immune mechanisms,
  3. RERF data on general increase in neoplasms.

## PRESENT EFFORTS

### Personnel

1. Physician, nurse, technician
2. Subspecialty utilization
3. Pediatric trips annually, with subspecialists
4. Dental coverage

### Projects (in addition to routine clinical coverage)

1. that directly bear on radiation-related illness:
  - a) Prolactin survey
  - b) Hypercalcemia survey
  - c) Paraprotein survey
  - d) Blood count changes
  - e) Continuation of thyroid program
2. that indirectly bear on radiation-related illness because they provide information on the general health:
  - a) Diabetes
  - b) Intestinal parasites
  - c) Folic acid and B<sub>12</sub> deficiency, macrocytosis
  - d) Toxoplasmosis survey
  - e) Erythropoietin survey
  - f) G-6-PD deficiency
  - g) Uric acid survey
3. that increase the effective utilization of data obtained:
  - a) Reports to M.I.G. on matters of public health importance
  - b) Computerization
  - c) Publication

## PLANS

1. Improve technique of thyroid nodule surveillance:
  - a) ultrasound
  - b) thyroglobulin levels
2. Evaluation of immune system:
  - a) skin testing
  - b) lymphocyte function
3. Improve data management:
  - a) data entry
  - b) epidemiology consultant
4. Improve clinical coverage by increasing Resident Physician trips to Rongelap.
5. Improve coordination of clinical efforts with M.I.G. Health Services:
  - a) working relationship in Ebeye
  - b) collaboration on projects

