July 29, 1981
NUMBER 6465.1

ASD(HA)
695-7116

# Department of Defense Instruction

ASD(HA)



SUBJECT: Hemoglobin S and Erythrocyte Glucose-6-Phosphate Dehydrogenase Deficiency Testing Program

Reference: (a) DoD Directive 5154.24, "Armed Forces Institute of Pathology," January 14, 1977

## A. PURPOSE

This Instruction establishes the requirements for a coordinated program of testing for the presence of Hemoglobin S and Erythrocyte Glucose-6-Phosphate Dehydrogenase (G6PD) deficiency in all personnel entering or on active duty who have not previously been tested.

## B. APPLICABILITY

The provisions of this Instruction apply to the Office of the Secretary of Defense and the Military Departments. The term "Military Services," as used herein, refers to the Army, Navy, Air Force, and Marine Corps.

## C. POLICY

1. The Department of Defense is instituting this blood-testing program to identify military personnel who have certain red blood cell genetic defects that may adversely affect their health.

2. Depending on the severity of the identified condition, some personnel may be separated from the Military Service as not physically qualified, some may have duty restrictions, and others may just require entries in their health records.

3. Those personnel determined to have Hemoglobiin S trait and Erythrocyte G6PD deficiency shall participate in a medical education program that explains the nature of their condition.

4. This program allows the Military Services to identify personnel with blood conditions, such as sickle-cell disease, sickle-cell trait, and Erythrocyte G6PD deficiency, and to terminate their military careers or to modify their military duties to prevent injury to their health.



## D. PROCEDURES

1. All personnel entering or on active duty in the Military Services shall be tested for the presence of Hemoglobin S and Erythrocyte G6PD deficiency. Those personnel who already have been tested need not be retested. Required testing of those on active duty should be completed within 2 years.

2. The results of such testing shall be entered on SF 601, "Record of Immunization," and filed in their health record. Hemoglobin S will be recorded as a percentage, and Erythrocyte G6PD will be recorded as normal or deficient. Determination of physical qualification shall be based on current physical standards.

3. Personnel identified as having Hemoglobin S and Erythrocyte G6PD deficiency shall participate in an educational program directed by trained medical personnel. Participation in this program should be noted in their health record on SF 600, "Chronological Record of Medical Care."

4. Laboratory procedures for the detection of Hemoglobin S and Erythrocyte G6PD deficiency shall be consistent with the following:

a. The initial screening for Hemoglobin S must detect Hemoglobin S in combination with all other known normal or variant hemoglobins.

b. The confirmatory test for Hemoglobin S must be electrophoresis, must include quantitation of the percent of Hemoglobin S that is present, and must be capable of distinguishing the phenotype of the individual.

c. All personnel identified as having Hemoglobin S or Erythrocyte G6PD deficiency, or both, shall be retested for confirmatory purposes within 3 months, and all discrepancies reported by letter to the requesting medical activity.

E. RESPONSIBILITIES

1. The Director, Armed Forces Institute of Pathology, is designated as the Executive Agent for coordinating the laboratory quality assurance program of the Military Services, and shall:

a. Expand their existing quality control program to include a single quality control program for abnormal hemoglobin detection, in accordance with DoD Directive 5154.24 (reference (a)).

b. Establish a reference laboratory for variant hemoglobin analyses.

2. The Secretaries of the Military Departments shall ensure that the Military Services:

a. Establish uniform laboratory procedures for the detection of Hemoglobin S and Erythrocyte G6PD deficiency.

b. Develop uniform procedures for counseling Military Service personnel found to have variant hemoglobins. These procedures shall consist of presentations and pamphlets explaining the condition, and an opportunity for discussions with qualified medical personnel.

c. Program the necessary resources to support this program.

d. Conduct a review of the testing program on an annual basis, with notice provided by the Assistant Secretary of Defense (Health Affairs), or his designee.

F. EFFECTIVE DATE AND IMPLEMENTATION

This Instruction is effective immediately. Forward two copies of implementing documents to the Assistant Secretary of Defense (Health Affairs) within 120 days.

Assistant Secretary of Defense
Health Affairs