Need For Improvement In Certain Hospital Laboratory Service Activities B-133044

Veterans Administration

UNITED STATES
GENERAL ACCOUNTING OFFICE

NOV. 13, 1973

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

MANPOWER AND WELFARE
DIVISION

B-133044

The Honorable Donald E. Johnson
Administrator of Veterans Affairs
Veterans Administration

Dear Mr. Johnson:

This is our report on the need for improvements in certain VA hospital laboratory service activities.

Our principal observations and recommendations are summarized in the report digest. VA generally agreed with the recommendations and informed us of the actions taken or planned to implement them. However, we suggested that VA further reexamine the need for acquiring any additional electron microscopes in excess of the 40 in operation at the end of fiscal year 1973. We are requesting that VA keep us advised of any acquisition of additional electron microscope units and its monitoring of the electron microscope program.

We are sending copies of this report to the Director, Office of Management and Budget, and the Senate and House Committees on Veterans Affairs, on Appropriations, and on Government Operations.

Sincerely yours,

Gregory J. Ahart

Gregory J. Ahart
Director

Contents

ABBREVIATIONS

EM	electron microscope
GAO	General Accounting Office
VA	Veterans Administration

REPORT TO THE ADMINISTRATOR OF VETERANS AFFAIRS

NEED FOR IMPROVEMENT IN CERTAIN HOSPITAL LABORATORY SERVICE ACTIVITIES B-133044

D I G E S T

WHY THE REVIEW WAS MADE

Since an effective laboratory program is essential in providing adequate health care, GAO reviewed VA hospital laboratories.

FINDINGS AND CONCLUSIONS

In most cases, VA laboratories provided effective services in support of health care to veterans and users were generally satisfied with test results. In certain areas, however, program planning and management needed improvement.

Acquisition and management of blood resources could be improved

VA considers blood from volunteer, rather than paid, donors more desirable because volunteer donors usually come from social and economic circumstances associated with a low incidence of hepatitis.

Although VA obtained most blood from volunteers, it could increase this supply by establishing a cooperative program with the military to obtain volunteer blood that exceeds military needs. (See p. 7.)

VA has a high rate of blood outdating--whole blood becomes unusable after 21 days--at some hospitals and a relatively low rate at others. Authorities on the management of blood banks have said low rates of outdating were attributed to using oldest blood first, reducing inventory levels, and transferring blood between blood banks. (See p. 8.)

VA has not provided specific guidelines for a standardized record system to provide accurate information for use in blood acquisition and disposition. Consequently VA's ability to control blood bank activities has been limited. (See p. 1

Electron microscope facilities underused

In 1965 VA decided to provide some laboratories with electron microscopes, primarily for diagnostic pathology and training. Electron microscopes, however, have been used more for research. On the basis of VA criteria, electron microscope units at laboratories visited were used about 8 percent of optimum capability for diagnoses and about 22 percent when research activity was included. (See p. 14.)

At the time of the GAO review, VA planned to acquire additional electron microscope units at a cost of $2.7 million and at an increase annual operating cost of $1.3 million. VA has not implemented the electron microscopy program in the manner that was originally intended

The large number of electron microscopes acquired has resulted in low overall use, and planned acquisition of additional units may not be justified. (See p. 14.)

Opportunity to increase use of general reference laboratories

Nine VA hospital laboratories have been designated "general reference laboratories to perform infrequent

requested and/or sophisticated tests for other VA hospital laboratories. GAO found that the reference laboratories had not fully satisfied the other laboratories' needs.

VA hospitals spent about $700,000 in fiscal year 1971 to obtain tests from non-VA laboratories. About 82 percent of the tests obtained on a fee basis at 16 locations visited were available at VA's general reference laboratories. (See p. 17.)

Effective use of VA's reference laboratories has been impaired by delays in obtaining test results, VA hospital officials' lack of knowledge concerning what tests are available at reference laboratories, and a lack of a system at reference laboratories for determining whether reference tests or the laboratories' own tests should receive priority. (See p. 18.)

Effective July 1, 1973, VA discontinued the general-reference-laboratory system and transferred these duties to 1 or more hospital laboratories in each of 37 medical districts. GAO believes the change will not resolve problems which contributed to ineffective use of the general-reference-laboratory system. (See p. 19.)

RECOMMENDATIONS OR SUGGESTIONS

To increase the effectiveness of its overall laboratory activities, VA should

Acquisition and management of blood resources

--establish a program for coordinating blood bank activities with the military to take advantage of available volunteer blood when needed;

--use techniques which have been shown to improve blood use;

--develop specific guidelines for implementing a system of records and controls over blood to provide accurate information for use in acquiring and disposing of blood (see p. 11);

Electron microscopy program

--determine the present equipment requirements on the basis of the program objectives for diagnostic and training applications;

--consider deactivating electron microscope units when they cannot be justified on the basis of available workload and fulfill needs by referring specimens to other VA electron microscope units (see p. 15);

General reference laboratories

--develop a method for informing hospitals of the tests available at laboratories throughout the VA system;

--establish VA-wide policies to insure suitable priority for reference tests;

--require, when possible, use of available messenger and teletype facilities to accelerate reporting of test results; and

--use fee-basis sources for tests only when the workload cannot justify an in-house capability. (See p. 20.)

AGENCY ACTIONS

VA generally agreed with these recommendations and reported actions

taken or planned to implement them.

Actions taken or planned by VA should largely improve laboratory service operations. However, GAO believes that further action is required and suggests that VA

--examine the feasibility of expanding cooperative blood bank activities with local military installations to a broader interstate basis and

--reexamine the need for acquiring any additional electron microscope units. (See pp. 11, 15, and 21.)

CHAPTER 1

INTRODUCTION

The Veterans Administration (VA) operates laboratories at each of its 169 hospitals. Laboratory services include tests on an examination of specimens; autopsies; obtaining, testing, storing, and supplying blood; and consultation, guidance, and training activities. Laboratory service functions discussed in this report should be distinguished from other VA hospital services, such as diagnostic radiology and research laboratory services.

In fiscal year 1972 VA spent about $76.9 million to perform about 92.6 million laboratory tests, to supply blood, and to otherwise assist hospital staffs.

Each VA hospital laboratory is directed by a Chief of Laboratory Service who is responsible to the Chief of Staff of the hospital. The Director of Pathology and Allied Sciences in the Department of Medicine and Surgery at the VA central office in Washington, D.C., is responsible for coordinating laboratory activities nationwide.

We noted that laboratories are making an increased number of tests. Chiefs of Staff at the hospitals we visited attributed this increase to

- --analyzer equipment which provides batteries of tests on each specimen,
- --medical advances which have created a need for a greater variety of tests,
- --increased teaching activities in hospitals affiliated with medical schools which have increased tests requested by medical students, and
- --greater emphasis placed on tests for screening purpose rather than for specific diagnoses.

At the time of our review certain VA hospital laboratori had been designated as general and/or special reference laboratories. These laboratories performed tests for other VA hospital laboratories that were infrequently needed and

required sophisticated equipment and/or required specially trained personnel. Six special reference laboratories have been designated to perform particularly sophisticated tests, and nine general reference laboratories have been designated to perform other sophisticated and infrequently needed tests.

Effective July 1, 1973, VA discontinued the general-reference-laboratory system and designated laboratories within each of its 37 medical districts to perform general-reference-test duties. No changes were made for the six special reference laboratories.

We reviewed VA's laboratory service activities at the VA central office in Washington, D.C.; at VA hospitals in Atlanta; Birmingham, Alabama; Boston; Charleston, South Carolina; Chicago (Research); Chicago (West Side); Cleveland; Coatesville, Pennsylvania; Hines, Illinois; Indianapolis; Iron Mountain, Michigan; Madison; Miami; Minneapolis; Montgomery, Alabama; Nashville; Newington, Connecticut; Philadelphia; Providence, Rhode Island; West Haven, Connecticut; West Roxbury, Massachusetts; and at VA Data Processing Centers in Boston and St. Paul.

We found that in most cases VA laboratories provided effective services in support of health care to patients and that users were generally satisfied with the quality and timeliness of test results. We noted, however, areas where VA could improve the planning and overall management of laboratories and, we believe, make a greater contribution to patient care.

CHAPTER 2

ACQUISITION AND MANAGEMENT OF BLOOD RESOURCES COULD BE IMPROVED

VA considers blood from volunteers more desirable because they usually come from social and economic circumstances associated with a low incidence of hepatitis. VA estimates, however, that an average of about 20 percent of the blood it obtains is from paid donors. We found that VA could significantly reduce the need to obtain blood from paid sources by entering into cooperative agreements with the military to obtain volunteer blood excess to military needs. VA blood banks also need to improve the management and control over the blood supply to insure optimum use of available blood.

OPPORTUNITY TO INCREASE VOLUNTEER BLOOD SUPPLY

VA policy pertaining to blood acquired for transfusion allows hospitals to obtain blood from any blood bank which has been approved by the National Institutes of Health or which has been inspected for the clearinghouse system of the American Association of Blood Banks and which complies with VA provisions for selecting donors. According to VA records, about 350,000 units of blood--a unit is approximately one pint--were obtained during fiscal year 1972. Of this number about 115,000 units, or about 33 percent, were from sources which obtain their blood from paid and volunteer donors.

At two military blood banks we visited, military programs may provide a supplementary source of donor blood for VA hospitals. Officials of the Whole Blood Donor Center at the Great Lakes Naval Hospital, Illinois, and of the U.S. Army Medical Research Laboratory at Ft. Knox, Kentucky, advised us that blood obtained from servicemen, which was excess to military needs, could have been provided to local VA hospitals if requested. However, the military blood banks and VA hospitals had no program for exchanging blood excess to military or VA needs. At the Ft. Knox facility, for example, VA hospitals in the area had not requested or received any blood during 1971 although this facility had furnished blood excess to its needs to local civilian hospitals. The Military Blood Program Agency Director, Department of Defense, informed us that local

cooperation between military and VA hospitals also is possible. This official said that interstate cooperation is not feasible, since military blood banks are not certified by the Food and Drug Administration (FDA). This official stated that, while FDA certification is not required for shipments between military installations, it is required for interstate shipments to other parties.

IMPROVED MANAGEMENT TECHNIQUES COULD DECREASE INCIDENCE OF BLOOD OUTDATING

Since blood cells deteriorate with age and change chemically during storage, whole blood not used within 21 days of collection is considered outdated. Although not suitable for transfusion, outdated blood can be processed into by-products and used for other medical purposes. Some VA hospitals had a high rate of blood outdating while others had a relatively low rate. Many of the blood banks visited were not using management techniques prescribed by blood banking authorities. We believe that the use of such techniques would improve the use of available blood and significantly reduce the amount of blood becoming outdated.

The rate at which blood was outdated at VA hospitals visited ranged from 3.3 to 26.3 percent of the total blood acquired during fiscal year 1971. An official of the American National Red Cross informed us that the rate of blood outdating in metropolitan areas averaged about 5 percent. As shown below, four of the six VA hospitals visited which were in or near metropolitan areas--defined by us as having a population of over 500,000--substantially exceeded this rate in fiscal year 1971.

VA hospital	Percent of blood outdated
Atlanta	4.3
Chicago (Research)	4.8
Boston	9.7
Minneapolis	10.0
West Roxbury	12.0
Hines	19.7

Blood bank officials of the American National Red Cross; Milwaukee Blood Center; and the Michael Reese Research Foundation, a Chicago blood center serving 17 area hospitals, identified the following techniques used to assist in minimizing blood outdating.

--Crossmatching oldest blood first, except where fresh blood is necessary. Crossmatching is a technique used to match units of blood to an intended recipient.

--Double crossmatching which is a procedure whereby a given unit of blood is matched to more than one recipient so that if the unit is not used by the first intended recipient it is available to the second or succeeding recipients.

--Maintaining blood inventories at levels consistent with expected needs.

--Increasing transfers of blood between blood banks as excesses and shortages arise to reduce the level of outdating and increase the availability of blood.

--Educating hospital staffs as to the limited supply of volunteer blood and building confidence that emergency requests, when necessary, can and will be filled.

--Releasing blood reserved for specific patients when such blood is no longer required for these patients.

The Michael Reese Research Foundation recently discontinued using paid-donor blood for transfusion. The Foundation Director informed us that a key factor in this decision was the initiation of techniques described above designed to conserve blood available from volunteer donors and that use of such techniques is expected at the hospitals it serves.

According to VA blood bank personnel, blood outdating resulted primarily from (1) physicians' ordering more blood for their patients than was needed, (2) physicians' not releasing crossmatched blood when it was no longer needed, and (3) blood suppliers' delivering blood with only a part of its useful life remaining. We also noted that some blood banks maintained inventories at levels higher than required by their guidelines and higher than suggested by suppliers.

The VA blood bank with the highest level of outdating had, at the time of our visit, a blood inventory of more than twice the level deemed desirable, had low blood-transfer activity with other blood banks, and had double-crossmatched blood only in unusual circumstances.

VA blood banking representatives at hospitals with lower levels of blood outdating attributed their performance to the use of the management techniques, such as those recommended by the Red Cross and the Reese Foundation, although each hospital did not use all techniques. The two blood banks in metropolitan areas with less than 5 percent blood outdating made efforts to minimize blood inventories, crossmatch oldest blood first, release blood promptly for subsequent crossmatching, and transfer blood between the blood bank and other users or the supplier. One of the hospitals used double crossmatching when the blood supply was low or when the blood type needed was rare.

BLOOD BANK RECORDKEEPING SYSTEM NEEDS IMPROVEMENT

VA requires adequate records to be maintained for safe and efficient blood bank operation; however, it does not provide specific guidelines or instructions for establishing a standardized record system to facilitate proper accounting for blood acquisitions and dispositions. The hospitals visited maintained widely differing systems to account for blood inventories and many of the systems appeared inadequate. In our opinion, records on blood bank activities should provide complete and accurate information to hospital management personnel and should provide comparable information to VA central office managers to assist them in carrying out their overview responsibilities.

The locations we visited had encountered problems in determining blood inventories, and the accuracy of reports was questionable due to the lack of beginning and ending inventory information, to inconsistencies between records, and to a lack of some records. One hospital reported that it had used 6,300 units of blood in fiscal year 1971, although it had only procured 5,200 units and no blood was on hand at the beginning of the year. Another hospital had not posted certain records for 6 months, and its other records had been disposed of after they were completed.

We also found that reports of outdated blood were substantially understated in relation to supporting records. Supporting records at 16 locations which had reported 7,863 units outdated showed that actually about 9,815 units were outdated.

These differing records systems and the quality of the recordkeeping has resulted in untimely and inaccurate information and, we believe, has prevented effective VA management control over blood bank operations at both hospital and central office levels.

RECOMMENDATIONS

We recommend that the Administrator of Veterans Affairs take steps to maximize the use of blood from volunteer sources and improve the management of blood bank activities by

- --establishing a program for coordinating blood bank activities with the military to take advantage of available volunteer-donor blood when needed,

- --using techniques which have been shown to improve use of blood, and

- --developing specific guidelines for implementing a system of records and controls over blood to provide accurate information for use in acquiring and disposing of blood.

AGENCY COMMENTS

VA agreed with our recommendation on using techniques which had been shown to improve use of blood. According to VA, directives have been issued to hospitals stressing optimal use of blood and blood products.

VA said that it was revising directives to provide more specific guidelines for acquiring and disposing of blood. In addition, VA stated that there will be a specific requirement for a locally developed inventory control for blood and blood components and they will enforce strict time limits on retention of crossmatched blood. (See app. I.)

With regard to our recommendation for coordinating blood bank activities with the military, VA advised us that some VA hospitals have local arrangements with military installations for procuring blood and that other VA hospitals would be encouraged to develop similar agreements.

VA did not agree with the Director of the Military Blood Program Agency that FDA certification is required in order for military blood banks to ship blood interstate to other than military installations. We discussed this matter with officials of the Bureau of Biologics, FDA, and were advised that FDA certification is required. FDA advised us, however, that discussions are in process with DOD and that it was optimistic agreement will be reached culminating in DOD blood banks' being certified.

We suggest that VA keep abreast of the discussion between FDA and DOD and, if an agreement is reached, VA should examine the feasibility of expanding the local cooperative arrangements with military installations to a broader interstate basis.

CHAPTER 3

ELECTRON MICROSCOPY FACILITIES UNDERUSED

VA had 40 electron microscope (EM) units in hospital laboratories at the end of fiscal year 1973. At the time of our review, VA also planned to acquire 29 additional EM units during fiscal years 1974 through 1977. These units are estimated to require an additional one-time expenditure of $2.7 million and about $1.7 million additional annual operating cost.

Because of the low demand for specimen examination, compared to available capacity, VA is not fully using the EM units currently in operation. However, VA plans to expand the number of EM units.

An EM unit includes the electron microscope and the necessary support facilities, such as a dark room, vacuum devices, other highly specialized equipment, and staffing. The principal advantage of EMs is that they permit magnification up to 250,000 times the size of the specimen, whereas conventional light microscopes only magnify up to about 1,000 times. As a result, EMs allow the observer to see farther into the inner cell structure of the specimen.

EM units are used for both diagnostic and research applications; the former relates to the care of specific patients, whereas the latter concerns the investigation and solution of medical problems having a direct bearing on patient care in general. Since their inception in 1965, the EM units have been intended primarily for use in clinical diagnostic applications.

Electron microscopy is a very sophisticated and costly procedure for diagnostic examination of patient specimens when contrasted with clinical laboratories' usual microscopic examination. The field is still in its infancy, and there are few areas where diagnostic applications for the EM have been fully demonstrated. At the eight EM units we visited, the capital and operating costs, including depreciation, per diagnostic specimen examined ranged from about $160 to $1,792 and averaged $591; the cost for all specimens including research averaged $215. We found that the lower the use of the EM unit, the higher the average cost.

EM EQUIPMENT CAPABILITY EXCEEDS DEMAND

Definitive measures for evaluating EM use by VA and the medical community in general had not been developed. VA's Electron Microscopy Ad Hoc Group, however, indicated in fiscal year 1972 that an experienced and organized crew of 2 technicians and 1 professional could examine as many as 5 specimens a day, or about 1,200 a year. For a relatively new unit, examination of 2 specimens a day, or 480 a year, was considered a reasonable workload. An official of VA's Department of Medicine and Surgery informed us that EM units operational under 2 years are considered relatively new.

Optimum capability for the 24 EM units operating as of December 1971, if fully staffed under VA guidelines, was about 19,600 specimens annually. However, these locations reported only 1,808 diagnostic specimens examined--about 9 percent of optimum--and 3,852 specimens when including research--about 20 percent of optimum. Using the VA criteria for specimens examined, we found that the 8 EM units visited (4 of which were in operation under 2 years) examined a total of 546 diagnostic specimens, about 8 percent of optimum, during calendar year 1971, and a total of 1,497 specimens, about 22 percent of optimum, when research activity was included. Our review of this data showed also that, apparently as a result of errors, the number of specimens reported to the VA central office was overstated. Records at the 8 EM units we visited showed that, although 1,497 specimens were examined during calendar year 1971, 1,895 specimen examinations were reported to VA central office.

CONCLUSIONS

VA has not implemented the electron microscopy program in the manner that was originally intended. Since its inception in 1965, the units have been intended for use in clinical diagnostic applications; however, actual experience shows that EMs have been used to a larger extent for research.

It appears that the acquisition of a large number of EMs has resulted in their low overall use. In view of the low levels of use and of demonstrated EM need, we believe that the planned level (69 units) of the program may not be justified. Accordingly, we believe that VA should first evaluate

use of and need for the units already existing before establishing additional units.

RECOMMENDATIONS

To achieve more efficient use of present diagnostic EM resources, we recommend that the Administrator of Veterans Affairs

- --determine the present equipment requirements on the basis of the program objectives for diagnostic and training applications and

- --consider deactivating EM units at those locations where an EM cannot be justified on the basis of available workload and fulfill EM needs by referring specimens to other EM units.

AGENCY COMMENTS AND OUR EVALUATION

VA said it has reevaluated its requirements and has determined that 53 to 55 EM units are required to meet diagnostic and training needs and to provide coverage for all VA hospitals. The current VA projection represents a reduction of from 13 to 16 units from the originally planned level of 69 units. We believe it is necessary to reduce the planned level of the EM program in view of the low use of the units at the time of our review. VA also said that it will be monitoring the EM program through annual reports and onsite visits and will consider deactivating or relocating EM units if necessary.

According to VA's Chief Medical Director, the requirement for 53 to 55 EM units was determined on the basis that EM units would be required to perform diagnostic examinations on 10,000 specimens annually. This represents more than a 5 fold increase in EM use over actual use (1,808 specimens) in fiscal year 1971.

VA reevaluated EM needs after our fieldwork was completed; therefore we did not have an opportunity to evaluate the basis on which the reevaluation was made. We note, however, that 53 to 55 EM units performing examinations on 10,000 specimens annually represents an average of less than 1 specimen a day per unit on the basis of a 5-day week.

Moreover, the 40 EM units in operation at the end of fiscal year 1973 performing examinations on 10,000 specimens annually represents an average of only about 1 specimen a day per unit on the basis of a 5-day week.

In view of the relatively low anticipated use of the EM units, less than one specimen a day per unit, we recommend that the Administrator of Veterans Affairs reexamine the need for acquiring any additional EM units.

CHAPTER 4

OPPORTUNITY TO INCREASE USE OF GENERAL REFERENCE LABORATORIES

VA's general-reference-laboratory system, which provides hospital laboratories with a source of infrequent or sophisticated tests, has not fully satisfied VA hospitals' needs as shown by the number of tests being submitted to non-VA laboratories on a fee basis, even though the VA reference laboratory system could have performed many of the tests.

A questionnaire sent to VA hospitals at our request showed that about 85,000 tests were performed on a fee basis by non-VA laboratories in fiscal year 1971 at a cost of about $700,000 Our analysis at 16 VA hospitals of about 11,000 of these tests, costing about $112,000, showed that more than 80 percent--about 9,200 tests costing about $91,000--could have been performed by 1 or more of VA's reference laboratories.

We found that VA cost per test was significantly lower than charges for similar tests obtained on a fee basis.

We selected six tests available at a VA reference laboratory and compared VA costs with fee-basis charges taken from the Federal Supply Schedule catalog. The schedule below shows that VA's cost for each test was significantly lower.

Test	VA cost	Charge (note a)
A	$3.18	$15.00
B	2.85	15.00
C	3.96	13.00
D	5.96	19.00
E	8.50	12.00
F	2.85	8.00

[a]Adjusted to include depreciation of major equipment.

VA hospital laboratories' tendency to use fee-basis services instead of VA reference laboratories appeared to be caused by delays in receiving test results from VA reference laboratories and by some VA hospitals' lack of knowledge as to what tests were available at the reference laboratories.

DELAYS IN RECEIVING TEST RESULTS

The time required to obtain test results from VA reference laboratories and from fee-basis laboratories differed significantly. The fee-basis laboratories usually provided more timely service--even when they were located considerably further from the requesting hospital than the VA reference laboratory. For example, a VA hospital served by a VA reference laboratory about 260 miles away received reference laboratory results on an average of 24 days after submission during fiscal year 1971. The average time required to obtain results from its fee-basis laboratories was 7 days, and two of these laboratories (which performed a substantial portion of the tests) were about 2,000 miles away.

On the basis of a sampling of tests sent to VA reference laboratories from laboratories at 9 of 16 VA hospitals visited, the time to obtain results ranged from about 6 to 24 days, and averaged 14 days. The turnaround time for similar types of tests sent to fee-basis laboratories ranged from 2 to 10 days and averaged 6 days.

Identifiable causes of the delays at the reference laboratories we visited included the following:

--Some tests were not received in sufficient quantities to warrant daily processing.

--Reference testing was not always given equal priority with a laboratory's own routine testing.

--Reporting of results was generally by mail, and not by available messenger and teletype facilities.

--Reference laboratory personnel considered some reference tests to be routine and not needing to be immediately reported.

One reference laboratory performed tests for other laboratories at the same time it performed its own hospital tests, but delayed reporting all reference tests until its routine work was completed. At another reference laboratory, laboratory officials informed us that, when conflicts arise, local work may be performed first and tests from other hospitals are deferred until local work is completed. This situation is

apparently caused by the lack of VA policy pertaining to the order of priority for performing tests.

Hospital officials informed us that, even though all VA hospitals have access to VA teletype facilities and some metropolitan area hospitals are served daily by messenger, results have generally been reported by mail. They also said that the most rapid form of mail service was not always used.

In addition, test results were sometimes held and forwarded in batches. One shipment of test results received at a VA hospital contained results completed by the reference laboratory over 17 days.

KNOWLEDGE OF AVAILABLE TESTS

VA policy pertaining to reference laboratories requires that hospital laboratories cooperate in the implementation of the VA reference laboratory program but does not specify the conditions under which reference laboratories and fee-basis laboratories should be used. No provision is made for VA-wide dissemination of information as to tests available at each of the reference laboratories.

Many VA hospitals did not have an up-to-date list of tests available at their assigned reference laboratory and were generally unaware of tests available at reference laboratories other than their assigned reference laboratory, even though availability of tests varied among reference laboratories. Although reference laboratories perform certain tests on a scheduled rather than daily basis, the hospitals we visited were generally not aware of this scheduling procedure. We believe this information would have been particularly useful in that it would have permitted requesting laboratories to submit requests for tests in accordance with the established schedules.

GENERAL REFERENCE LABORATORIES DISCONTINUED

Effective July 1, 1973, VA discontinued the general reference laboratory program, which used 9 laboratories, and transferred the duties to 1 or more hospital laboratories in each of 37 planned medical districts.

The VA circular explaining the change indicated that the goals of the general reference laboratories can be fulfilled under the plan and that close ties within each medical district may lead to the development of more services. The general reference laboratories' difficulties in performing tests promptly were not mentioned in this circular.

CONCLUSIONS

We do not believe that the problems which contributed to the ineffective use of the general-reference-laboratory system will be resolved by transferring reference laboratory duties to laboratories in the medical districts. The change leaves planning and implementation of reference activities up to the discretion of each district and does not provide for additional guidelines and control in those areas where the existing system exhibits weaknesses. Furthermore, the change does not provide for performing tests which may not be within the capability of each district and may therefore result in further increases in use of fee-basis services, even though similar tests may be available within VA.

RECOMMENDATIONS

In implementing the program for performing reference-type tests within each of the 37 medical districts, the VA central office should provide for additional controls and guidelines to insure more effective use of its facilities. The Administrator of Veterans Affairs should

- --develop a method whereby each VA hospital is made aware of the more sophisticated tests available in the entire system and the locations where these tests are made;

- --establish VA-wide policies to insure that reference tests receive suitable priority;

- --require, when possible, use of available messenger and teletype facilities to accelerate the reporting of test results; and

- --use commercial sources on a fee basis only where the workload for specialized tests is not sufficient to justify the acquisition of the necessary equipment and

staff to perform these tests in house and periodically review this determination.

AGENCY COMMENTS

VA stated that it did not object to our recommendations regarding general reference laboratories. VA advised us that guidelines would be issued to include management and controls exercised by each medical district, setting priorities for referred test performance, providing for communications between the laboratory services, periodically reviewing the fee-for-service tests, and announcing available sources for special tests. (See app I.)

VETERANS ADMINISTRATION
OFFICE OF THE ADMINISTRATOR OF VETERANS AFFAIRS
WASHINGTON, D.C. 20420

AUGUST 7, 1973

Mr. Frank M. Mikus
Assistant Director, Manpower
and Welfare Division (801)
U. S. General Accounting Office
Room 137, Lafayette Building
Washington, D. C. 20420

Dear Mr. Mikus:

We have reviewed your draft report entitled "Need for Improvement in Certain Hospital Laboratory Service Activities - Veterans Administration."

In regard to the recommendation of "...establishing a program for coordinating blood bank activities with the military to take advantage of available volunteer donor blood when needed," the Veterans Administration has explored this proposal with the military. The military does not favor a nationwide cooperative agreement to provide supplementary sources of blood for the VA. Some VA hospitals have local arrangements with military installations for procurement of blood. Other VA hospitals will be encouraged to develop similar agreements.

However, we question the conclusion, drawn on page 10 of the report, that cooperation with the military is not presently feasible on an interstate basis because military blood banks are apparently not required to be certified by the FDA for this type of shipment. Although VA is complying voluntarily, we feel that these FDA regulations are as binding on DoD as they are on VA; and if DoD is not bound, neither is VA. This opinion has the informal concurrence of FDA. It is also noteworthy that the American National Red Cross Collects blood at military bases, some of which may be distributed to VA hospitals.

Mr. Frank M. Mikus
Assistant Director, Manpower
and Welfare Division (801)
U. S. General Accounting Office

It is our opinion that the pending implementation of the National Blood Policy should add impetus to cooperative efforts for providing voluntary donor blood from military and other sources.

We agree with your second recommendation in regard to "...using techniques which have been shown to improve utilization of blood." Outdating of blood is a problem for all blood banks. VA directives have been issued to hospitals stressing optimal utilization of blood and blood products. These directives specifically emphasize inventory control, use of older blood first, and judicial management of "reserved", cross-matched blood.

With reference to the recommendation pertaining to "...developing and implementing a uniform and adequate system of records and controls over blood to provide accurate information for use in managing and evaluating VA Blood bank activities," the VA has always required maintenance of adequate records for safe and efficient blood banking operation. However, VA directives are being revised to provide more specific guidelines for blood acquisition and disposition. In addition, there will be a specific requirement for a locally developed inventory control mechanism which will include establishing realistic inventory quotas for blood and blood components; and enforcing strict time limits on retention of cross-matched blood.

Although there is no disagreement with the recommendations on page 19, to determine present equipment requirements, based on VA diagnostic and training objectives, and to consider deactivating some electron microscopy units, we wish to point out that our electron microscopy program goals may differ from those of other specialized medical services. It was

Mr. Frank M. Mikus
Assistant Director, Manpower
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originally conceived as a progressively new and valuable dimension into diagnostic pathology. However, realistic productivity goals and measurement units are evolving from our careful reevaluation of present and projected needs and we are now in a position to more definitely determine our diagnostic and training requirements. VA's regionalization plans, the increasing use of sharing agreements and the need to optimize existing resources has led us to reevaluate our installation requirements. We have determined that 53 to 55 installations are required to meet diagnostic and training needs and to provide coverage among the 169 VA hospitals. We plan to terminate the program as a centrally planned Specialized Medical Service when these installations have been established. We are monitoring the program through annual reports and on-site visits and will consider the deactivation or relocation if indicated.

We have no objection to the four recommendations for more effective use of the VA's general reference laboratories. The functions of these laboratories are being incorporated with the plans for reorganization into regional medical districts. Guidelines will be issued to include management and controls exercised by each medical district, setting of priorities for referred test performance, provision for communications between the laboratory services, periodic reviews of the fee-for-service tests, and the announcement of available sources for special tests. Reports of reviews and actions will be forwarded to VA Central Office.

Thank you for the opportunity to review this draft. If you have any questions concerning our comments my staff will be available.

Sincerely,

FRED B. RHODES
Deputy Administrator

APPENDIX II

PRINCIPAL OFFICIALS OF

THE VETERANS ADMINISTRATION

RESPONSIBLE FOR

ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
ADMINISTRATOR OF VETERANS AFFAIRS:		
D. E. Johnson	June 1969	Present
DEPUTY ADMINISTRATOR:		
F. B. Rhodes	May 1969	Present
CHIEF MEDICAL DIRECTOR:		
M. J. Musser, M.D.	Jan. 1970	Present
DIRECTOR OF PATHOLOGY AND ALLIED SCIENCES SERVICE:		
Marjorie J. Williams, M.D.	Nov. 1963	Present

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