GAO

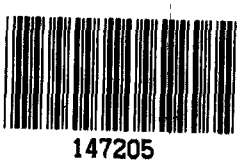
United States General Accounting Office

Report to the Honorable
Frank H. Murkowski, U.S. Senate

August 1992

VA HEALTH CARE

Role of the Chief of Nursing Service Should Be Elevated



GAO/HRD-92-74

GAO

United States
General Accounting Office
Washington, D.C. 20548

Human Resources Division

B-243094

August 4, 1992

The Honorable Frank H. Murkowski
United States Senate

Dear Senator Murkowski:

On July 9, 1990, you requested that GAO identify ways in which the Department of Veterans Affairs (VA) can improve the quality of care furnished by nurses working in acute care settings. Nurse turnover, reduced morale, insufficient support staff to perform routine tasks, and lack of support from hospital administration can limit the efficiency and effectiveness of the patient care provided by nurses. In recent years, all have been cited as problems in both VA medical centers and non-VA hospitals. After discussions with your staff, it was agreed that GAO would concentrate its review on (1) organizational changes that VA can make to enhance the role of nursing and (2) VA's use of information technology to increase nurse time at the bedside.[1] This report focuses on the concept of elevating the role of the chief of nursing service so as to allow direct reporting to a medical center director. It also discusses the utilization of bedside terminals in VA medical centers.

Background

VA provides care to eligible veterans through a system of 171 medical centers, 345 outpatient clinics, 127 nursing home care units, and 35 domiciliaries. In fiscal year 1990, VA had 1.1 million inpatient admissions and provided 22.6 million outpatient visits. As of March 1991, VA directly employed a staff of approximately 33,700 registered nurses, 10,400 licensed practical nurses, and 14,600 nurse assistants. VA nurses are responsible for patient care 24 hours a day, 7 days a week. The nurses are supported by personnel such as dietitians who evaluate patients' nutritional needs, ward clerks who provide clerical support on nursing units, and housekeeping staff. In addition, nurses regularly interact with other hospital departments—such as radiology, laboratory, and respiratory therapy—to arrange and coordinate the provision of various services required by patients in accordance with physician orders and patient needs. In May 1988, the Congress passed the Veterans' Benefit and Services Act of 1988, which requires, among other things, that the head of each VA medical center's nursing service be a member of all policy-making committees, such as budget and professional education, that can influence patient care. This legislation allows the chief of nursing service to have

[1]On July 31, 1991, we reported that VA can increase the time for clinical activities available to its nurses by placing telephones in patients' hospital rooms. See VA Health Care: Telephone Service Should Be More Accessible to Patients (GAO/HRD-91-110, July 31, 1991).

input to management decisions that affect nurses and the overall management of their centers.

In performing this review, we interviewed VA Central Office officials and nurses in four VA medical centers to obtain their perspective on VA's efforts to (1) increase the amount of time nurses have available for clinical duties and (2) enhance the quality of the nursing service. We also reviewed pertinent studies by VA, the Department of Health and Human Services (HHS), the American Hospital Association (AHA), and others. Finally, we interviewed various personnel involved in projects that are currently under way to increase the amount of time nurses spend on clinical duties. (See app. I.)

Results in Brief

In most nonfederal hospitals, the chief of the nursing service is an executive who reports directly to the hospital chief executive. VA tested such an arrangement in one of its medical centers and evaluated the results. VA found enhanced nursing morale, decreased nurse turnover, and more efficient and effective resolution of issues and problems in such areas as patient care. In spite of this success, VA has not extended the concept beyond the one test site. VA's chief medical director is concerned that at other VA medical centers, elevating the chief of nursing service to an associate director position, reporting directly to the center director, would adversely affect the morale of service chiefs such as the chief of medicine. However, we believe that elevation of the role of chief of nursing service should be extended to other VA medical centers.

Bedside terminals have the potential to improve both nurse productivity and the quality of care provided to patients. But both VA and non-VA hospitals have been slow to install such equipment because of its high cost. VA is now testing the bedside terminals at two sites; it plans to complete an evaluation of these tests by August 1992, at which time it can make a more informed decision about the cost-effectiveness of wider use of this technology.

Nurse Executives in Many Nonfederal Hospitals Are Placed in a Higher Organizational Level Than VA Chief Nurses

In the 1980s, many nonfederal hospitals modified their organizational management structure to allow chief nurse executives to report directly to the chief hospital executive.[2] Initially, these changes were designed to combat nursing shortages and provide nurses with a greater sense of involvement in the management of the hospitals. However, reorganization also addressed nurses' growing interest in greater professional autonomy. In 1980, the American Nurses Association (ANA) issued a social policy statement indicating that nurses want nursing to become an autonomous health profession, with well-defined areas of expertise. The perceived or actual lack of authority and influence within the employment setting was often cited by the HHS Secretary's Commission on Nursing as an important component of nurse dissatisfaction. By elevating the role of chief nursing personnel to executive management levels, these nursing concerns are being addressed.

More than 85 percent of the nonfederal respondents to an AHA 1989 Hospital Nursing Personnel Survey stated that their chief nurse executive reports to the hospital's highest officer (see table 1).

[2]The American Hospital Association defines the chief nurse executive as a registered nurse on the hospital executive management team who is responsible for the management of the nursing organization and for the clinical practice of nursing throughout the institution.

Table 1: Survey Respondents Indicating That Their Chief Nurse Executive Reports to a Chief Hospital Executive

Hospital characteristic	Respondents	
	Percentage	Number
Location		
Rural	90	443
Urban with population under 1 million	83	394
Urban with population equal to or greater than 1 million	84	313
Type of organization		
Nonprofit, investor owned	90	763
State and local government	87	325
Federal government	37	62
Beds		
1-49	88	208
50-99	92	233
100-199	89	293
200-299	86	175
300-399	80	97
400-499	78	59
500+	65	85

Source: American Hospital Association, 1989 Report of the Hospital Nursing Personnel Survey.

Nurse involvement in executive management has tangible benefits. For example, in 1988 the HHS Office of Inspector General (OIG) issued a report to the HHS Secretary's Commission on Nursing; the report discussed some of the more successful strategies nursing services in 13 hospitals developed to recruit and retain nurses.[3] Two common themes were present:

- The nursing services that achieved substantial reductions in their nurse turnover and vacancy rates received strong support from the chief executive officer and the governing body.
- The chief nurse executive in each of these hospitals reported directly to the chief executive officer.

In VA, the only chief of nursing service reporting to a medical center director is at the Columbia, Missouri, VA Medical Center. Her position has been elevated to an associate director for nursing. Every other VA chief of

[3]Support Studies and Background Information, HHS Secretary's Commission on Nursing, Vol. II (Dec. 1988), pp. V-1 to V-25.

nursing service is required to report to a chief of staff who, in turn, reports to the medical center director. The new organizational alignment in the Columbia medical center is shown in appendix II.

Elevation of the Role of Chief Nurse Can Improve the Quality of Care VA Provides to Patients

In 1988, VA initiated a pilot study in its Columbia medical center to determine how the elevation of the center's chief of nursing service to a management position, reporting to the center director, would affect the overall operation of the center. Consulting firm and center staff studies conducted in 1989 and 1990 concluded that elevation of the role of chief of nursing service in the center's management and decision-making structure resulted in improvements in several areas that have had a direct impact on the quality of care provided to patients. Thus, both groups recommended that the concept be retained at the Columbia medical center and that other VA medical centers be given the option of allowing the chief of nursing service to report directly to the center director. After a review of the study, the OIG also concluded that the role elevation should be continued at the Columbia medical center. He further recommended that (1) the merit of the concept be thoroughly explored and (2) a systemwide study be developed to establish the effects of such a change on administrative efficiency and patient care.

In 1989, to obtain opinions on the role elevation, a survey questionnaire was distributed by the management of the Columbia medical center to 18 clinical service chiefs and associate chiefs (that is, medical, surgical, anesthesiology, and laboratory); 12 administrative service chiefs and associate chiefs (that is, building management, administrative services, dietetics); and 13 head nurses from various wards in the medical center. About one-third of the clinical service chiefs, all of whom are physicians, stated that communications between their services and the nurses had improved and that clinical problems were more promptly resolved as a result of the elevation. The remaining clinical service chiefs saw no difference—either positive or negative—in the communications or handling of problems. In contrast, about 85 percent of the nurses surveyed believed that the elevation had a positive impact on the resolution of patient care problems. Most of the nurses also believed that patient care had improved and that the relationship between nurses and other center support services had improved.

During the evaluation, center personnel were also asked to identify any problems they had with this role elevation. Of the 26 clinical and administrative service chiefs who responded to the questionnaire, 20

stated that they encountered no problems with the elevation. Six service chiefs did, however, raise such questions as these: Would the role of the chief of staff be compromised by a loss of control over the chief nurse? Would other service chiefs have problems with the chief of nursing being perceived as organizationally "better" than they? Would the role of chief of nursing become more administrative than clinical?

The acting chief of staff, at the time the elevation took place, reported the following in the survey: the nursing service had the largest number of employees concerned with direct patient care; it was essential that these nurses be kept aware of and interested in (1) the mission of the center and (2) the fiscal and personnel resources available to do the job. The input and dialogue established by having nursing in top management, he stated, could only show greater unity of purpose and benefit productivity.

Both the center director and the associate director for nursing at the Columbia medical center, who evaluated the survey responses, arrived at this conclusion: The organizational change improved communications between top management and the nursing department, resulted in more efficient and effective resolution of issues and problems in areas such as patient care, improved the relationship between nursing and various support services, enhanced nurse morale, and decreased the nurse turnover rate. As a result, the director and associate director recommended that the role elevation be continued in the Columbia medical center and that other VA hospitals be given the option of implementing the concept. An example of the benefits of this role elevation, the medical center director said, is that patient care incidents are more comprehensively and accurately reported to top management because they "do not get lost in the typical bureaucratic maze."

The chief of staff appointed in January 1989 told us that the only problem he can foresee with this concept is the potential for the chief of staff not to be involved in the decision process for issues concerning the nursing service and patient care.

In 1990, a consulting firm conducted an efficiency review of nursing services at the Columbia medical center. As part of this review, the consultants examined the organization of the medical center's nursing service. The 1988 role elevation, they concluded, ensures the direct participation of the nursing service in all major decisions affecting both it and the medical center; among other things, the elevation provides for more efficient and effective resolution of issues and problems. The

consultants recommended that (1) the role elevation be retained in the Columbia medical center and (2) the VA Central Office give consideration to allowing other VA centers the option of elevating the role of chief of nursing service, based on the needs of an individual center, the qualification of the incumbent, and other operational considerations.

In May 1991, staff in VA's Office of the Secretary requested that the OIG provide an opinion on the Columbia medical center pilot study and subsequent recommendation that the concept be extended to other facilities. In July 1991, the OIG reported to the Office of the Secretary that (1) numerous changes are taking place in the nursing profession, which are propelling it into increasingly responsible and complex hospital duties, and (2) VA may not yet have fully recognized the implications of these changes. The Columbia recommendation can be a useful starting point, he concluded, for a series of necessary explorations of the changing role of nurses in health care. The pilot study should be continued, the OIG recommended, and the concept of elevating the role of chief of nursing service to associate director of nursing, reporting to the center director, should be given thorough examination. A systemwide study should be developed, the OIG further recommended, to determine the effects of such a change on carefully selected, objective indicators of administrative efficiency or patient care. A small advisory group, comprising senior nursing and senior hospital administrators, he concluded, should be convened to prepare experimental protocols, designed to test the validity of the proposed change.

In a July 25, 1991, response to the OIG's recommendations, the VA chief medical director stated that he has no immediate plans to elevate the role of the chief of nursing service in VA medical centers. Larger implications should be considered, he further stated, including a substantial outlay of financial resources for educational development programs for chief nurses. He added that other "relational and programmatic" issues at the medical centers also require consideration if such a major change was to occur.

In November 1991, the chief medical director said that he does not want to elevate chief nurses to a higher organizational status than other service chiefs, such as medicine and surgery, because of the potential adverse impact such a decision would have on the morale of the service chiefs. He also said that the chiefs of nursing services, through their participation in the various medical center committees, have an adequate means of communication with management. The chief medical director further

stated that he intends to continue the role elevation at the Columbia medical center because it has the support of local management and appears to be working well. But he has no plans to extend the concept to other VA centers.

Use of Bedside Computer Terminals May Improve the Efficiency and Effectiveness of Nurses

A generally accepted assumption in the nursing community (both VA and non-VA) is that there is a direct relationship between the amount of time nurses spend with patients and good quality nursing care. Therefore, a common goal of nursing administration is to increase the direct patient care activities of the nursing staff. The more limited time nurses have available for direct patient care activities, nurses believe, the greater the risk that patient care may be compromised in such ways as inadequate monitoring of the patient's condition, limited patient education, and medication errors.

Bedside computer terminals have the potential to increase the time nurses spend at the bedside and improve the quality of care provided to patients (see app. III). But the equipment is expensive. The initial cost of implementation can run from $2,000 to $10,000 a bed depending on the vendor used and the functions of the system installed. Further, quantitative data, demonstrating that bedside terminals actually achieve purported benefits, are lacking. Several studies publicizing the benefits of bedside terminals have been completed, but independent researchers have cautioned that they should be treated with skepticism since vendors may have been involved in the development of the studies.[4] As a result, both VA medical centers and non-VA hospitals have been slow to install these terminals. VA is, however, conducting pilot studies in two centers to determine if the benefits of using this technology justify the costs.

In its 1988 report, the HHS Secretary's Commission on Nursing discussed the benefits of information systems technology, such as bedside terminals, citing the viewpoints of eight vendors. Nursing productivity can be improved, these vendors believe, by automating patient care plans, progress notes, and documentation; quality of care can be improved by more accurately capturing data and having this information available on a

[4]H.B.J. Nieman and others, "Bedside Nursing Information Systems— Vision and Experiences," The BAZIS Group, Central Development and Support Group (The Netherlands: May 1988), pp. 2-4; C. R. Shelton, "Bedside Computers—Hospital Friendly?" New Jersey Healthcare (Jan.-Feb. 1989), pp. 3-6; and Gerry Hendrickson and Christine T. Kooner, "Effects of Computers on Nursing Resource Use," Computers in Nursing, Vol. 8, No. 1 (Jan.-Feb. 1990), pp. 16-22.

more timely basis.[5] The vendors provided several case studies to support their position. For example, one hospital implemented a bedside terminal system in a unit with 14 nurses and realized savings of $57,000 annually in reduced time spent on preparing patients' charts. An additional annual savings of $259,000 was achieved through reductions in nurse overtime. The willingness of hospitals to make an extra investment in patient care information systems, the Commission concluded, may reflect the increased value employers place on improving nurse productivity in times of increased demand for nursing services.

In 1988, VA's Medical Information Resource Management Office hired a consulting firm to evaluate the potential of bedside terminals for increasing the amount of time VA nurses have available to provide direct patient care. The firm evaluated available terminal systems and the specific needs of the VA medical care system; in September 1990 it concluded that bedside terminals have the potential to improve clinical operations and the quality of patient care in VA medical centers. Bedside terminals, the firm stated, have application in most clinical environments, but are particularly useful in ambulatory/emergency care, critical care, and acute medical/surgical wards. The firm recommended that VA senior management consider testing the terminals in live clinical environments to determine, among other things, the costs and benefits of such systems.

In response to this recommendation, in 1990, VA initiated a 2-year pilot test of bedside terminals at the Chicago (Westside), Illinois, Medical Center. During this test, certain nurse documentation tasks, such as patient assessments and progress notes, have been automated; a determination will be made as to whether nurses can reduce the amount of time spent on these activities and use the time to provide better and more personalized care to patients. Another objective of the test is to obtain cost information on hardware acquisition, user training, and equipment maintenance. The test involves the installation of bedside terminals at each of 27 beds in the respiratory therapy ward. The evaluation of the project is to be completed by August 1992.

In September 1991, VA installed 20 bedside terminals in the medical/surgical ward of its Baltimore, Maryland, VA Medical Center.[6] The project calls for the automation of several nurse data entry and retrieval

[5]Support Studies and Background Information, HHS Secretary's Commission on Nursing, Vol. II (Dec. 1988); and Interim Report, HHS Commission, Vol. III (July 1988).

[6]The Baltimore medical center is using a different brand of bedside terminal than that being tested at the Chicago (Westside) medical center.

functions that are currently done at a centrally located nurses station. Using the bedside terminals, nurses will be able to enter a patient's vital signs, take admission histories, develop and revise care plans, and document other treatment procedures at the bedside. An in-house evaluation will be carried out and the results published in medical journals. VA expects to complete the effort by August 31, 1992.

Conclusions

VA should give more consideration to the potential benefits of having the chief of nursing service report directly to the medical center director. The concept is generally accepted in nonfederal hospitals and is working well in the one location in VA where it has been implemented. Organizational obstacles in the path of change, such as a perceived lack of control over nurses by center chiefs of staff, should be addressed. Further, the potential cost of training chief nurses for such a role must be examined. However, these potential problems should not be allowed to preclude further examination of the concept of role elevation that could improve center operations and patient care.

VA's strategy of pilot-testing bedside terminals—using different brands of clinical computing devices to determine the extent to which the benefits justify the costs—appears to be reasonable.

Recommendation

We recommend that the Secretary of Veterans Affairs direct the chief medical director to

- allow VA medical centers, with both the interest and the capability, to elevate the role of chief of nursing service to a position reporting directly to the medical center director.

Agency Comments

In a June 19, 1992, letter, the Secretary of Veterans Affairs concurred with our conclusion that VA should review the potential benefits of having a chief of nursing service report directly to a VA medical center director (see app. IV). As a result, the Secretary has asked the chief medical director to explore the implications of elevating the role of chief of nursing service.

The Secretary does not, however, agree with our recommendation. Before he will agree to take such action, the Secretary wants certain issues evaluated, such as (1) the importance of maintaining the current practice of having the chief of staff as the final point of responsibility for clinical

and patient care issues, (2) the potential for the concept to cause conflict in patient care issues, thus diluting the decision-making process, and (3) the applicability to VA of the private sector's experience with this concept.

Having the chief of each medical center's nursing service be a member of all policy-making committees that can influence patient care, the Secretary concluded, should result in the type of improvements GAO is seeking.

We agree that the issues raised by the Secretary should be considered before any action is taken to elevate the role of the chief of nursing service systemwide. But, in our opinion, the best way to effectively determine whether these issues have any validity is to expand the concept to other medical centers that have both the interest and capability to conduct such a study. Further, having a nursing representative on policy-making committees that can influence patient care does not necessarily result in the type of improvements we are seeking. Policy-making committees comprised almost solely of physician staff can inhibit candid and full discussion of nursing issues. The medical center directors would benefit from receiving direct reports on specific nursing issues and their impact on the patient care provided in their medical centers, without the data's being filtered through physician staff.

We are sending copies of this report to the Secretary of Veterans Affairs and to interested congressional committees. We will also make copies available to others on request. If you have any questions about this report, please call me at (202) 512-7101. Other major contributors are listed in appendix V.

Sincerely yours,

David P. Baine

David P. Baine
Director, Federal Health
Care Delivery Issues

Contents

Abbreviations

AHA	American Hospital Association
ANA	American Nurses Association
HHS	Department of Health and Human Services
OIG	VA Office of the Inspector General
VA	Department of Veterans Affairs

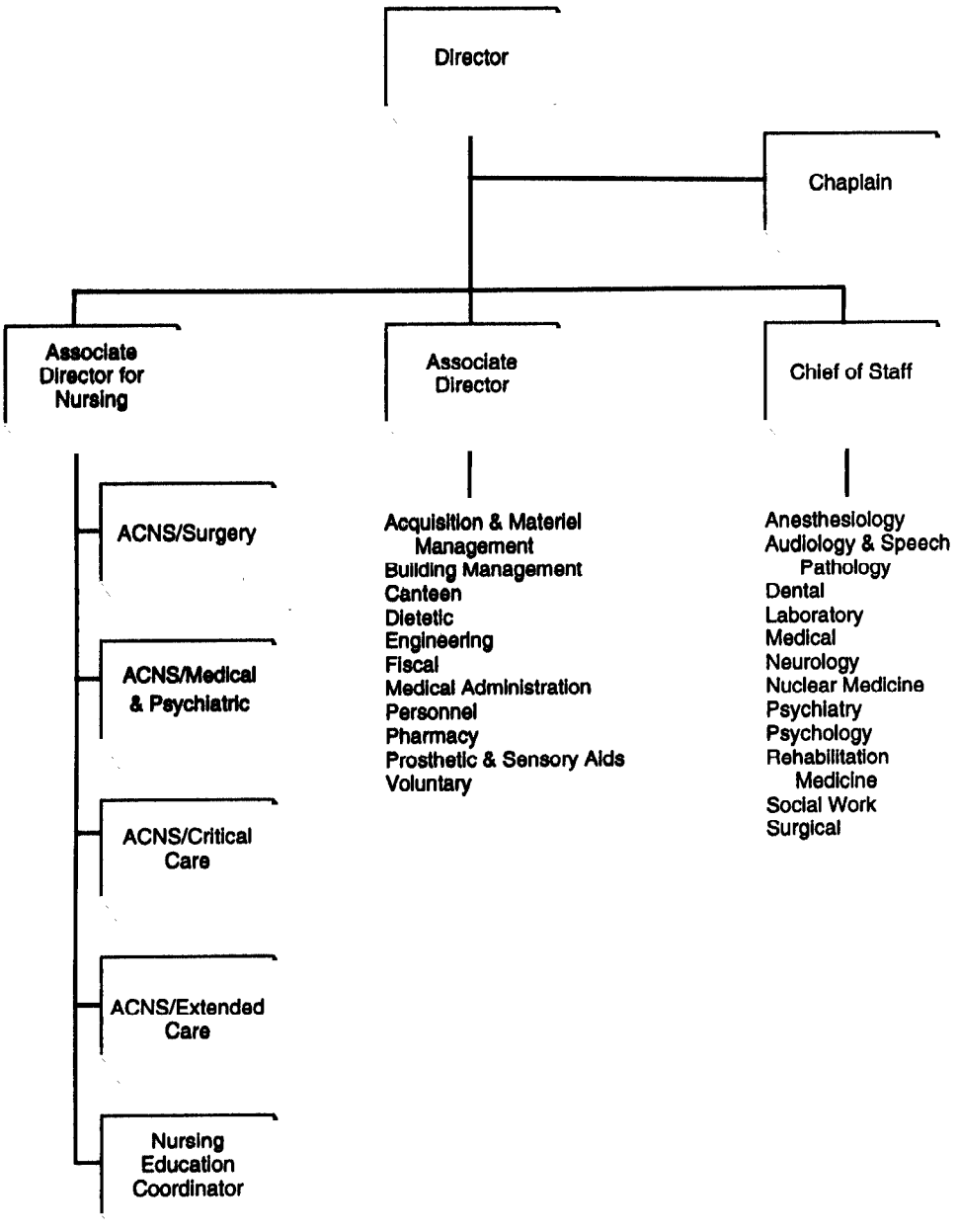
Scope and Methodology

During this review, we interviewed VA Central Office officials to determine the extent to which VA has examined alternative ways to (1) increase the amount of time their nurses have available for clinical duties and (2) enhance the quality of nursing services. We visited four VA medical centers (Baltimore, Maryland; Columbia, Missouri; San Diego, California; and Washington, D.C.) to discuss these issues with various VA officials, including center directors, chiefs of staff, chiefs of nursing service, information resource managers, and other staff involved in these issues. We also interviewed officials of VA's Medical Information Resources Management Office to discuss the use of bedside terminals.

We reviewed a variety of documents related to a pilot study elevating the status of the chief of nursing service in the center organizational structure, a feasibility study prepared by a private consulting firm on the acquisition and use of bedside terminals, and a pilot test of bedside computer terminals. We visited a private vendor to obtain a demonstration of the capabilities of its bedside computer terminals. We examined reports pertaining to the efficiency of VA nurses at several VA medical centers and, when possible, identified the portion of a nurse's available time devoted to nonclinical tasks. We interviewed various personnel who are currently examining nursing issues under contract with New York University, the Robert Wood Johnson Foundation, and The Pew Charitable Trusts. We also conducted a literature search and reviewed studies and reports related to various initiatives to improve nurse productivity in non-VA hospitals.

We carried out our work from August 1990 through December 1991, in accordance with generally accepted government auditing standards.

Organizational Chart: Columbia, Missouri, VA Medical Center



Note: ACNS refers to assistant chief of nursing service.

Bedside Terminals Have the Potential to Increase the Efficiency and Effectiveness of Nurses

Bedside terminals have been commercially available since the mid-1980s, but, as of September 1990, less than 1 percent of the nation's 6,000 hospitals had installed them. The equipment is specifically designed to help nurses by assisting in or automating certain routine and repetitive tasks, such as taking vital signs (for example, temperatures and blood pressures) and improving the timeliness, readability, and accuracy of nursing documentation, such as patient assessments and progress notes.

All of the bedside terminal systems available on the market today are based on the principle that nurses should be able to readily enter and retrieve patient information at the bedside, where most care is provided. Proponents of bedside terminals believe this equipment has several advantages over traditional methods of recording and retrieving patient data. Using bedside terminals, nurses no longer have to write notes on the patient's condition or on treatments provided and later transcribe them into the patient's record. Eliminating transcription not only saves nurse time but may also help to eliminate errors that occur in the transcription process. When tied to a hospital's automated information system, bedside terminals can also improve the retrieval of information: for example, information on test results can be made available at the bedside as soon as it is available in the laboratory. This can lead to more timely initiation or adjustment of therapy. Moreover, many believe that bedside terminals free nurses from clerical tasks and enable them to provide more hands-on care at the bedside. These terminals may also have the potential for improving the quality, completeness, and timeliness of information in medical records.

Comments From the Department of Veterans Affairs

THE SECRETARY OF VETERANS AFFAIRS
WASHINGTON

JUN 19 1992

Mr. David P. Baine
Director of Federal Health Care
Delivery Issues
U. S. General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Baine:

I have carefully reviewed your draft report, **VA HEALTH CARE: Nurses Skills and Knowledge Can Be More Effectively Utilized** (GAO/HRD-92-74), and although I do not agree with GAO's recommendation, I agree with GAO's conclusion that VA should review the potential benefits of having its nursing service chiefs report directly to a VA medical center (VAMC) director. Accordingly, I have asked the Chief Medical Director to explore the implications of elevating the position of Chief, Nursing Service.

You should be aware that there is a wide range of strongly and sincerely held views on the role of nurses in hospitals. I am not convinced at this time that GAO has made the point that the elevation of the Chief, Nursing Service position will necessarily result in a better hospital management system or improved patient care. Before we would make this decision, we would want to evaluate issues such as (1) the criticality of maintaining the current practice of having the Chief of Staff as the final point of responsibility for clinical and patient care issues, (2) the potential of this concept for causing conflict in patient care issues, thus diluting the decision-making process, and (3) the applicability of the private sector experience with this concept to VA. In addition, we would want to study prospectively if the apparent success of the VAMC Columbia experience was confirmed by objective improvements in outcomes over a representative sample of VAMCs.

As you are aware, Public Law 100-322, enacted in May 1988, requires "that the head of each VA hospital's Nursing Service be a member of all policy making committees...that can influence patient care." This legislation enables nursing staff to actively participate in the hospital's management and decision-making processes and should also result in the type of improvements I believe GAO is seeking.

The second part of your report concerns our current review of the potential merits of using bedside computer terminals in our hospitals. I am pleased that GAO supports our efforts to pilot-test various brands of clinical computing devices. As the report indicates, the pilot test as well as our cost versus benefit analysis should be completed shortly.

Thank you for the opportunity to comment on this report.

Sincerely yours,

Edward J. Derwinski

EJD/vz

Major Contributors to This Report

Human Resources Division, Washington, D.C.	James A. Carlan, Assistant Director, (202) 512-7120
Norfolk Regional Office	Steve J. Fox, Regional Management Representative William L. Mathers, Evaluator-in-Charge Mary Jo Moody, Evaluator

Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are $2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20877

Orders may also be placed by calling (202) 275-6241.

United States
General Accounting Office
Washington, D.C. 20548

Official Business
Penalty for Private Use $300

First-Class Mail
Postage & Fees Paid
GAO
Permit No. G100