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Report to the Congress

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VA HOSPITALS

Surgical Residents Need Closer Supervision

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GAO

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Comptroller General
of the United States

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To the President of the Senate and the
Speaker of the House of Representatives

This report discusses the adequacy of the supervision of surgical residents at Veterans Administration (VA) hospitals. At the request of Senator Cranston, Ranking Minority Member, Senate Veterans' Affairs Committee, we assessed VA's criteria for, and enforcement and monitoring of, surgical resident supervision. We also compared VA's supervision of residents with supervision observed at 15 affiliated non-VA hospitals.

We are sending copies of this report to Senator Cranston; the Director, Office of Management and Budget; the Administrator of Veterans Affairs; officials of the non-VA hospitals included in our review; medical organization officials with whom we consulted; and other interested parties.

Charles A. Bowsher

Comptroller General
of the United States

Executive Summary

A 1977 study by the National Academy of Sciences found that 69 percent of operations performed by residents at Veterans Administration (VA) hospitals were unsupervised. To find out whether VA had corrected this problem, the Ranking Minority Member, Senate Veterans' Affairs Committee, asked GAO to determine whether (1) surgical residents in VA hospitals were being adequately supervised, (2) VA was monitoring the adequacy of this supervision, and (3) such supervision in VA hospitals was comparable to that in non-VA hospitals.

Background

During fiscal year 1984, 105 of VA's 172 hospitals participated in surgical residency programs. These programs usually involve a medical school, a VA hospital, and one or more other hospitals through which a resident rotates. VA estimated that in 1984 it trained about 7,000 surgical residents and that about 47 percent of all surgical residents in the United States serve a rotation at a VA hospital.

After issuance of the National Academy of Sciences' report, VA headquarters issued criteria for supervision of residents, and VA's manual stated that headquarters was responsible for monitoring the VA hospitals' supervision.

GAO reviewed surgical resident supervision at 10 VA and 15 non-VA hospitals and sent a questionnaire to VA supervising surgeons and residents at 28 VA hospitals.

GAO could not assess supervision at VA hospitals using VA's criteria for supervision because they were too broad. Therefore, GAO developed more specific criteria. Thirty-seven medical organization officials provided input into these criteria, and 31 of them generally agreed with GAO's final criteria. The criteria establish the minimum supervision needed to ensure quality patient care and effective resident training.

GAO's criteria set out minimum levels for preoperative, intraoperative, and postoperative supervision. The preoperative criteria require the supervising surgeon to see the patient, discuss the case with the resident, and write or countersign the preoperative note regarding the diagnosis and treatment decisions. The intraoperative criteria set out minimum supervision according to the resident's experience. The postoperative criteria require the supervising surgeon to see the patient and discuss the case with the resident within 24 hours after surgery.

Results in Brief

Only 34 percent of the 148 surgical cases GAO reviewed were in compliance with all of GAO's criteria for adequate supervision. The adequacy of supervision varied considerably among VA hospitals visited.

VA headquarters did not adequately monitor VA hospitals to assure that they were adequately supervising surgical residents and the monitoring within the hospitals varied in quality.

In response to GAO's questionnaire, surgeons and residents indicated that supervisory actions generally occur slightly more frequently at non-VA hospitals than at VA hospitals.

Principal Findings

Adequacy of Supervision

Although supervision varied among VA hospitals, compliance with the intraoperative criteria was generally adequate. However, compliance with all the preoperative and postoperative criteria was insufficient, as shown in table 1.

Table 1: Percentage of Cases Reviewed in Compliance With All GAO Supervision Criteria

VA Hospital	Preoperative Criteria	Intraoperative Criteria	Postoperative Criteria
Atlanta	46	100	60
Charleston	100	100	85
Kansas City	43	100	23
Loma Linda	42	100	55
Memphis	82	92	93
Palo Alto	46	100	73
Sepulveda	67	100	62
Washington	47	100	79
West Haven	21	36	13
West Los Angeles	18	93	46

The hospitals' enforcement of VA headquarters' criteria varied, thus affecting residents' supervision. For example, VA's and GAO's criteria required a supervising surgeon's note in the medical records confirming the diagnosis and need for surgery. However, in 44 percent of the cases GAO reviewed, the supervising surgeon did not write or countersign a

note. Only one VA hospital visited was in compliance with this requirement for all cases reviewed. The hospital enforced the requirement by not allowing surgery to start without such a note in the medical records.

Monitoring

VA headquarters' primary means of monitoring supervision consists of reviewing annual audits submitted by VA hospitals. However, as of March 6, 1985, 33 percent of the VA hospitals did not submit the results of their audits for fiscal year 1984. Moreover, only one of the reports submitted contained enough information to monitor preoperative, intraoperative, and postoperative supervision. The regional directors are responsible for enforcing the requirement to submit the results of an annual audit. However, VA headquarters had not told them which VA hospitals had not complied with the requirement.

In addition, VA headquarters has not issued specific requirements for VA hospital monitoring of supervision, and the quality of monitoring varied.

Non-VA Supervision

The 74 cases GAO reviewed supported the results of the questionnaire indicating that the level of VA hospitals' supervision was slightly lower than at non-VA hospitals. Table 2 shows the compliance for cases GAO reviewed at non-VA and VA hospitals.

Table 2: Comparison of Non-VA and VA Hospitals' Compliance

	Number of Cases in Compliance With All:		
Type of Hospitals	Preoperative Criteria	Intraoperative Criteria	Postoperative Criteria
Non-VA	41 of 66 (62%)	71 of 73 (97%)	60 of 71 (85%)
VA	66 of 129 (52%)	133 of 144 (92%)	77 of 131 (59%)

The non-VA supervising surgeons have incentives that seem to promote adequate supervison of residents. For instance, non-VA surgeons said that most health insurers require that, in order to be reimbursed, the supervising surgeon must examine the patient. VA supervising surgeons do not have the same incentives.

Recommendations

To help assure adequate supervision of surgical residents, GAO recommends that the Administrator of Veterans Affairs direct the Chief Medical Director to

- revise VA headquarters' criteria on supervision to be at least as specific as GAO's criteria;
- require that VA hospitals enforce criteria for surgical resident supervision;
- take specific steps to improve headquarters' monitoring of supervision, including directing headquarters to notify the regional directors of missing annual audit reports so that they can enforce the requirement that audit reports be sent to VA headquarters; and
- specify the system that the VA hospitals should use to monitor and report on the supervision of surgical residents.

Agency and Other Comments

VA concurred with most of GAO's recommendations and said a directive implementing them would be issued immediately. VA disagreed with portions of the recommendations to revise and enforce its criteria. However, after reviewing VA's comments, GAO still believes that VA should implement all the recommendations. The comments received from the non-VA hospitals and the medical schools ranged from general agreement with the report to disagreement with some of GAO's findings.

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Abbreviations

ACGME	Accreditation Council on Graduate Medical Education
GAO	General Accounting Office
JCAH	Joint Commission on Accreditation of Hospitals
MIEO	Medical Inspector and Evaluation Office
NAS	National Academy of Sciences
SERP	Systematic External Review Program
VA	Veterans Administration

Introduction

In 1977, a National Academy of Sciences (NAS) study on the Veterans Administration's (VA's) health care system found that "There was no supervision by a full-time or part-time staff surgeon in 69% of operations performed by residents." A medical malpractice suit relating to surgery performed by residents at the Charleston, South Carolina, VA medical center in December 1981 again raised concerns about VA's supervision of surgical residents. As a result of these concerns, Senator Cranston, Ranking Minority Member of the Senate Committee on Veterans' Affairs, requested that we follow up on the NAS study and review VA's supervision of surgical residents. (See app. I.)

Residents and Residency Training

Residents are persons who have completed medical school and are participating in graduate medical training. They are physicians and in some states may be licensed to practice.

The U.S. Liaison Committee on Medical Education has indicated that graduate medical education (residency training) is essential. This committee, which accredits medical schools, has stated that the undergraduate phase of medical education is no longer sufficient to prepare a student for independent medical practice. Graduate training is needed to allow the physician to develop expertise in a special branch of medicine and expand the knowledge and skills acquired in medical school to assume personal responsibility for patient care.

The Accreditation Council for Graduate Medical Education (ACGME) accredits residency programs. ACGME categorizes residency programs by specialty and for each specialty has a residency review committee, which sets specific standards and reviews the programs. ACGME has identified nine surgical residency programs: general surgery, colon and rectal surgery, neurological surgery, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology. Depending on the specialty, the surgical residency programs require from 4 to 7 years. General surgery, the program having the most surgical residents at VA, is a 5-year program.

VA's Role in Surgical Residency Programs and Relationship With Medical Schools

VA's three health care objectives are to provide quality medical care to veterans, to educate and train medical personnel, and to conduct research. Resident training is an important part of the second objective.

During fiscal year 1984, 105 of VA's 172 hospitals participated in surgical residency programs. These programs usually involved a medical

school, a VA hospital, and one or more other hospitals through which a resident rotates.

The medical schools usually sponsor the residency programs and therefore are responsible for the programs' overall management. However, ACGME requirements and VA's guidance indicate that each VA hospital is ultimately responsible for the quality of its residency programs. In addition, ACGME and VA have stated that quality patient care should take precedence over residents' training. VA guidance states that the VA hospital surgical service chief is responsible for providing appropriate supervision to ensure high standards of patient care. The staff surgeons at the VA hospitals directly supervise the residents. Therefore, although the medical school is responsible for managing the overall residency program, the VA hospital is responsible for the quality of resident training it provides and is solely responsible for the quality of patient care.

VA's Department of Medicine and Surgery, which oversees VA hospitals, has standard affiliation agreements with the medical schools. These agreements require a dean's committee to be set up to cooperate with VA hospital personnel in establishing residency programs and maintaining the hospital's training programs at the same quality as those in the affiliated medical school.[1]

According to the president of the Association of American Medical Colleges, the distinction between the responsibilities of the affiliated medical school and the VA hospital become blurred because they share many of the same staff surgeons (who are paid on a salary basis). About 79 percent of the staff surgeons at the VA hospitals with surgical residents are part-time VA employees. These part-time staff often practice at the medical school hospital as well as the VA hospital. In addition, VA hospitals also use consultants, who also may be on the medical school staff, to supervise residents. VA pays consultants on a per-visit basis.

The Department of Medicine and Surgery authorizes each VA hospital a certain number of resident positions based on the approved residency programs. The residents rotate through these positions, so the actual number of residents at a VA hospital over a year's time exceeds the number of positions authorized. For instance, the VA hospital in Washington, D.C., has 24 positions, and about 100 residents rotate through

[1]Since the dean's committee consists of medical school officials, when we refer to medical school officials in this report, we are including the committee.

these slots each year. The rotations at the VA hospitals generally last from 1 to 6 months.

In fiscal year 1984, VA funded 1,871.5 surgical resident positions in its hospitals and, according to VA estimates, trained about 7,000 surgical residents. According to VA's Associate Deputy Chief Medical Director, about 47 percent of all surgical residents in the United States serve a rotation at a VA hospital.

Problems With VA's Supervision of Surgical Residents Noted in NAS' 1977 Report

In addition to finding that 69 percent of the operations performed by VA residents were unsupervised, in a 1975 survey NAS found that 15 percent of the full-time staff surgeons and 12 percent of the part-time surgeons thought VA had too little supervision of residents. In addition, 25 percent of the residents responding to the NAS survey said they received inadequate supervision and 41 percent felt that the quality of supervision at VA hospitals was lower than at the non-VA hospitals.

NAS recommended that:

"A staff surgeon should be present for all regularly scheduled surgery. For emergency surgery, a staff surgeon should be in attendance in no less than 70% of cases. Appropriate procedures for monitoring and reporting on these requirements should be instituted."

VA agreed with NAS' findings but said that a staff surgeon need not actively participate in all surgical procedures because the need for supervision varies with the skill and training of the resident. In addition, VA argued that having a staff surgeon present for 70 percent of all emergency cases was unrealistic. Further, VA said NAS could not substantiate that the NAS-recommended actions were needed, because the data did not indicate that these changes would result in improved patient care or reduced mortality or morbidity. VA said it would

- issue and strengthen the standards for proper supervision and
- monitor compliance with the established requirements.

Objectives, Scope, and Methodology

Our objectives were to evaluate

- the adequacy of supervision of surgical residents at VA hospitals,
- the adequacy of VA's efforts to address NAS' recommendations,

- the VA central office's efforts to ensure VA hospitals' uniform compliance with VA guidance on supervision, and
- the VA hospitals' supervision of residents compared to that at non-VA hospitals.

To achieve these objectives, we developed a criteria paper defining adequacy of supervision of surgical residents; visited 10 VA hospitals and 15 non-VA hospitals; interviewed VA hospital, central office, and regional office officials; and sent questionnaires to VA staff surgeons and surgical residents. We performed this review between April 1983 and March 1985 in accordance with generally accepted government auditing standards.

During our preliminary work, we determined that supervision of surgical residents was most crucial when the diagnosis and treatment were decided, during the surgery, and right after surgery. Therefore, our review covered preoperative, intraoperative, and postoperative supervision of surgical residents for inpatient operations. We evaluated supervision only as it related to patient care and did not review functions mainly related to resident education, such as conferences and seminars.

Our preliminary work indicated that VA's criteria for adequate supervision were too broad and that NAS' recommendations were too rigid to use in evaluating supervision. (See ch. 2 for a discussion of VA's criteria and NAS' recommendations.) In addition, the various professional organizations we contacted did not have specific criteria for resident supervision. Therefore, we developed our own criteria defining adequate supervision of surgical residents.

These criteria are a consolidation of comments received from 37 surgical and medical professionals on which there was general agreement. (See ch. 2 for a more detailed description of the criteria.) We used the criteria to assess the adequacy of VA's instructions and practices concerning supervision of surgical residents. Because it is difficult to determine the quality of the interactions between the residents and the supervising surgeon, the criteria address the supervising surgeon's involvement and location, and not the quality of supervision. For instance, when the supervising surgeon was in the operating room, we assumed he/she was adequately supervising the resident; we did not differentiate between whether the supervising surgeon should be operating, assisting, or observing. Likewise for preoperative and postoperative supervision, if the supervising surgeon discussed the case with the resident, we did not evaluate the quality of the discussion.

Between September 1983 and July 1984, we visited 10 VA hospitals to obtain information on their policies and practices on supervising surgical residents. We judgmentally selected the VA hospitals to obtain a mix of characteristics in residency programs. These characteristics included (1) the size of the residency program, (2) the distance from the medical school, and (3) the surgical specialties of the programs. (See app. II for information on the VA medical centers we visited.)

To compare the amounts of supervision at VA and non-VA hospitals, we visited the medical school, its hospital, and in some cases, a private or public non-VA hospital affiliated with the same residency programs as the VA hospital. In total, we visited 15 non-VA hospitals between December 1983 and July 1984.

At each hospital, we met with the director and/or chief of staff, chief of surgery, and other supervising surgeons, as well as officials responsible for the hospital's quality assurance program. We reviewed pertinent files and records regarding policies, guidance, and monitoring of supervision of surgical residents. To determine the actual supervision, we randomly selected about 15 operations at each VA hospital and about 5 at each non-VA hospital. We chose operations from the week, or 2 weeks, if necessary, before our visit. Cases from 2 weeks were used if the number of applicable cases from 1 week was less than 50. (See app. III for the methodology used to select cases and determine the supervision that occurred.) We stratified our samples so that we would get a mix of general surgery and other surgical specialties. At the VA hospitals, we also chose at least one emergency operation.

To obtain the non-VA hospitals' cooperation during our visits, we said we would not identify the supervision observed with the individual hospitals. This did not affect our study, as our purpose was not to assess the non-VA hospitals but rather compare their practices to those at the VA hospitals.

The methodology we used at the VA and non-VA hospitals to identify the staff surgeons' supervision of residents was reviewed and approved by GAO's Chief Medical Advisor and discussed with various medical/surgical professionals. We determined the involvement of the supervising surgeon based on interviews and medical records. We interviewed the staff surgeons, residents, anesthesiologists, and nurses present for the operation regarding the role of the supervising surgeon. In total, we interviewed 417 people at the VA hospitals and 339 people at the non-VA hospitals. We reviewed hospital records (for example, operating room

logs and nurses' worksheets) and patients' medical records (for example, operation report, anesthesia record, and progress notes) to determine whether the surgeon's involvement was documented.

The data collected on the cases reviewed at the VA and non-VA hospitals cannot be generalized to all surgical cases performed at the hospitals we visited. However, the cases are an indication of how specific cases were supervised and the practices for supervision of residents at those hospitals.

We sent a questionnaire on resident supervision to about 1,000 surgical residents and staff surgeons at 28 randomly selected VA hospitals. (See app. IV for the description of the sampling methodology.) We asked the supervising surgeons and residents to indicate the frequency with which supervising surgeons performed a particular supervisory action. In addition, we asked supervising surgeons and residents who had worked at non-VA hospitals similar questions regarding supervision at non-VA hospitals. Responses to our questionnaire gave us an indication of the supervision of residents throughout the VA system and at non-VA hospitals. (See app. V for the questionnaire results.) We compared the questionnaire results with our findings at the VA and non-VA hospitals visited and to the results of NAS' questionnaire reported in its 1977 study.

At the VA central office, we spoke with the officials in the offices of Professional Services and Academic Affairs and the former Medical Inspector and Evaluation Office.[2] We also spoke with officials in various regional directors' offices. We reviewed the VA instructions on supervision of residents, as well as VA's mechanisms for monitoring and evaluating supervision of surgical residents. We also met with NAS officials to discuss their study.

We did not determine the effect of differences in supervision of residents on the quality of care. However, we noted that in a 1983 letter to the VA hospitals, VA's Chief Medical Director stated that supervision of residents affects both patient care and resident training. A 1981 Association of American Medical Colleges publication also stated that quality of supervision, patient care, and resident training go hand in hand.

[2]A March 3, 1985, organizational change within the Department of Medicine and Surgery split the Medical Inspector and Evaluation Office into two new offices—the Office of Quality Assurance and the Office of Medical Inspector.

However, the effect on patient care of residents receiving inadequate supervision is difficult to determine. According to the chairman of the Residency Review Committee for Surgery, rarely can a complication or death from surgery be attributed solely to the lack of resident supervision. Many other factors enter into each case. For instance, the patient's age and physical condition may affect the outcome of an operation. Also, high morbidity or mortality rates at a hospital could have many causes. It would be difficult to isolate and identify the role resident supervision plays in these rates. However, we believe that adequate supervision of surgical residents is desirable and, generally, should result in higher quality care than inadequate supervision.

VA Should Revise Its Criteria for Adequate Supervision Of Surgical Residents

In 1978, after NAS' study, VA issued criteria on the supervision of surgical residents. Although these criteria have been updated and improved, the current criteria are broad and open to varying interpretations.

Because VA's criteria were too broad to use to assess the adequacy of supervision of residents and we were unable to identify specific written criteria prepared by a medical or surgical organization, we developed, using the input of 37 medical professionals, specific criteria for the supervision of surgical residents.

Our criteria are more specific than VA's and, therefore, less open to interpretation. As we discuss in chapters 3 and 4, VA's criteria were interpreted differently among the 10 VA hospitals we visited. Therefore, we believe VA should revise its criteria to be no less specific than ours.

VA's Supervision Criteria Are Open to Interpretation

In 1978, VA issued criteria on supervision of surgical residents. This guidance was updated several times, most recently in April 1984. The new criteria are basically a restatement of the previous criteria. The new criteria clarified some requirements, but added ambiguity to another. (See table 2.1 for a listing of VA's current criteria.)

VA's criteria are general and open to interpretation. Each VA hospital can implement its own guidance on supervision of residents provided it conforms with the criteria. At the 10 VA hospitals we visited, the guidance varied.

VA's Preoperative Criteria

VA's preoperative criteria state that supervising surgeons must provide "appropriate supervision." They also require supervising surgeons to write preoperative notes. However, the criteria do not explain "appropriate supervision."

Three of the VA hospitals we visited had preoperative guidance that was more specific than the "appropriate supervision" required by VA. Charleston, West Los Angeles, and Kansas City VA hospitals required the supervising surgeon to see the patient or discuss the case with the resident.

Six of the VA hospitals we visited had guidance that allowed noncompliance with VA's criteria. Guidance at five hospitals allowed the supervising surgeon to countersign a resident's note rather than requiring the supervising surgeon to write the preoperative note. In addition,

although West Haven VA hospital's regulations required a preoperative note written by the supervising surgeon, its regulations allowed a preoperative conference with the resident to be a substitute for a note.

VA's Intraoperative Criteria

VA's revised criteria specify five levels of acceptable intraoperative supervision:

(1) The resident assisting the staff surgeon;
(2) The staff surgeon acting as assistant to the resident;
(3) Presence of the staff surgeon in the operating room for consultation;
(4) Presence of the staff surgeon in the surgical suite; and
(5) Presence of the staff surgeon within the medical center complex or an adjacent health care facility and available for immediate call to the operating room. (As a general guideline, the staff surgeon shall be able to be physically present within 15 minutes.)

Except for level 5, these levels have basically remained the same since VA originally issued its guidance in 1978. Before April 1984, level 5 called for the supervising surgeon to be within the medical center complex and available for immediate call to the operating room, but did not specify a time limit.

The five levels cover a wide range of supervision, and determining which level is appropriate is left to the supervising surgeon on the case. The criteria state that "the appropriate degree of supervision during major surgical procedures may be achieved by one or more" of the five levels.

Four of the VA hospitals we visited had written guidance requiring the supervising surgeon to be in the hospital or on the hospital grounds during an operation by a resident. Three VA hospitals used the VA criteria outlining the five levels of supervision. Memphis VA hospital's guidance required the supervising surgeon to be within 15 minutes of the operating room, and the West Haven VA hospital had guidance outlining six levels of supervision which required the supervising surgeon to be at least in the medical center during scheduled surgery.

Charleston VA hospital's guidance allowed the supervising surgeon to be outside the hospital if the chief resident was in the operating room and the supervising surgeon was immediately available by telephone for consultation. This guidance was not in compliance with VA's criteria.

At three of the VA hospitals, oral guidance differed from written guidance. For instance, at the Palo Alto VA hospital, the chief of surgery said that he told the supervising surgeons that they should be in the operating room during surgery, whereas the written guidance allowed the surgeons to be within the medical center complex. At the West Haven VA hospital, the written guidance required the supervising surgeon to be in the medical center. However, the operating room staff interpreted the "medical center" to include the medical school, which is more than 15 minutes away.

VA's Postoperative Criteria

VA's postoperative criteria, like its preoperative criteria, state that the VA hospitals must provide "appropriate supervision" but do not define it. Half of the VA hospitals we visited did not expand on these criteria.

The Charleston and Memphis VA hospitals had guidance requiring postoperative notes by supervising surgeons, and the Sepulveda and West Los Angeles VA hospitals had guidance requiring supervising surgeon notes throughout the patient's treatment. Two specialties (orthopedics and otolaryngology) at the Kansas City VA hospital also had specific postoperative guidance requiring the supervising surgeon to see the patient and/or discuss the case with the resident. The other five VA hospitals visited had no specific guidance covering the supervising surgeons' postoperative supervisory actions.

Need to Identify Specific Written Criteria

We decided not to use VA's criteria to assess supervision at the hospitals we visited because those criteria were broad and open to interpretation. Therefore, we looked outside of VA for criteria on adequate supervision of surgical residents.

Medical and surgical professionals told us that NAS' recommendations (see ch. 1) were too rigid to use as criteria for adequate supervision. Of the 19 officials we initially talked with, 13 said that supervising surgeons need not be in the operating room during all scheduled surgery performed by residents. They agreed that, within certain limits, the supervising surgeons must use their judgment in determining the proper level of supervision. Three officials also commented that NAS' recommendation that the supervising surgeon be in the operating room during 70 percent of all emergency surgery performed by residents was arbitrary. They said that adequate supervision must be determined case by case rather than by prescribed percentages.

We then turned to medical and surgical organizations to obtain specific criteria. However, the organizations we contacted indicated that the medical community has little written criteria because it, like VA, relied on the supervising surgeons' judgment to determine adequate supervision. For instance, ACGME's residency review committees set out special requirements for residency training programs in the various surgical specialties, stating that the residents must be "adequately supervised" but not defining that term. The Joint Commission on Accreditation of Hospitals (JCAH) required that residents treat patients "under the appropriate degree of supervision." No specific requirements were stated except for requiring documentation in the medical records substantiating the supervising surgeons' participation in and supervision of the patients' care. The American College of Surgeons' only specific criteria on the supervision of residents indicated that one supervising surgeon should be responsible for the patient during all phases of treatment.

Development of GAO's Criteria

Since we were unable to identify specific written criteria for evaluating the adequacy of supervision of residents, we decided to develop criteria acceptable to the medical community and specific enough to use to evaluate supervision at VA hospitals.

We contacted 19 medical professionals representing medical organizations, such as the various Residency Review Committees, JCAH, the American Board of Surgery, and others. (See app. VI for a complete list of individuals and organizations contacted.) These officials were from a cross-section of the medical community, not just surgical organizations. They were officials involved in and concerned with resident training and/or patient care and included individuals from organizations responsible for accrediting residency programs and hospitals, as well as officials representing professional organizations and certifying boards for the surgical specialties.

We asked these officials to specify the minimum acceptable supervision for the various levels of surgical residents, keeping in mind the need for both quality patient care and resident training. We consolidated their responses into a draft criteria paper.

This draft was sent for comments to the original 19 medical professionals and another 18 officials representing other medical and surgical organizations. We analyzed the responses received and made changes to finalize the criteria paper. Of 37 officials contacted (including 3 of the 4 VA and former VA officials who reviewed the draft), 31 generally agreed

with our criteria. Of the remaining six officials, four did not comment on the final criteria, and two neither agreed nor disagreed with them. (See app. VII for the final criteria paper.)

GAO's Criteria

Our criteria set out the minimum supervision needed for quality patient care and resident training. Within these minimums, supervising surgeons must use their judgment to determine the appropriate level of supervision. The criteria recognize that residents should be given increased responsibility as they progress through the residency program and that decisions on the level of supervision depend on the residents' knowledge, skill, and experience, as well as the complexity and risk of the operation.

For our review, we defined "supervising surgeons" as staff and consulting surgeons who have completed the appropriate surgical residency program and "chief residents" as residents in their last year of a residency program. The preoperative phase includes the time from the patient's admittance to the hospital until surgery, the intraoperative phase covers the time of surgery, and the postoperative phase is the period after surgery. This review addresses only the first 24 hours after surgery, because our sample of cases was taken from operations immediately before our visits and the full postoperative hospitalization might have extended beyond our visit. Several surgeons indicated that the first 24 hours after the operation is a crucial period.

Two overall principles for supervision apply during all phases of the patient's treatment: (1) the supervising surgeon should always be qualified in the applicable surgical specialty and (2) one supervising surgeon should be responsible for each patient during hospitalization. This surgeon should monitor the patient's condition during the preoperative, intraoperative, and postoperative phases.

Our criteria for supervision during all three phases are outlined in table 2.1. Preoperatively, the minimum supervision includes the supervising surgeon discussing the case with the resident, seeing the patient, and documenting agreement with the diagnosis and treatment plan by writing or countersigning a preoperative note in the patient's medical record.

Table 2.1: Comparison of VA's and GAO's Criteria for Supervision of Surgical Residents

	GAO Criteria	VA Criteria
Overall requirements	Residents should be given increased responsibility as they progress through the residency program. The responsibility or independence given to the residents should depend on their knowledge, manual skill, and experience, as well as the complexity and risk of the operations. To ensure the quality of patient care and proper supervision of residents, one supervising surgeon should be responsible for each patient during hospitalization. The supervising surgeon should always be one qualified in the applicable surgical specialty.	As residents advance in the training program, they may be given progressively increasing levels of responsibility. The degree of responsibility will depend on the resident's general aptitude, demonstrated competence, prior experience with similar procedures, and the complexity and degree of risk involved in the anticipated procedure. To ensure the quality of patient care and proper supervision of residents, one supervising surgeon should be responsible for each patient during hospitalization. Residents meeting certain requirements are exempt from the supervision requirements.
Preoperative supervision	Supervising surgeon should: —see the patient, —discuss the case with resident, and —write or countersign a preoperative note.	Supervising surgeon must: —provide appropriate supervision and —write a preoperative note.
Intraoperative supervision—scheduled surgery	First-year resident operating: —supervising surgeon should be in operating room. Chief resident operating: —supervising surgeon should be within 15 minutes of operating room.[a] Other residents operating: —supervising surgeon should be in operating room or surgical suite.[a]	The appropriate level of supervision may be achieved by one of the following: —The resident assisting the supervising surgeon. —The supervising surgeon acting as assistant to the resident. —Presence of the supervising surgeon in the operating room for consultation. —Presence of the supervising surgeon in the surgical suite. —Presence of the supervising surgeon within the medical center complex or an adjacent facility and available for immediate call to the operating room (generally, within 15 minutes).

	GAO Criteria	VA Criteria
Emergency surgery	All residents should contact the supervising surgeon before surgery.[b]	All residents must contact the supervising surgeon before surgery.
	Chief resident operating: —supervising surgeon should be available by telephone.[b]	Supervising surgeon may elect to be physically present or available by telephone, depending on the expertise and level of the resident and the nature of the case.
Postoperative supervision (within the first 24 hours after surgery)	Supervising surgeon should: —see the patient and —discuss the case with resident.	Supervising surgeon must: —provide appropriate supervision.

[a]If the operation is extremely risky or complex, the supervising surgeon should be in the operating room no matter what the level of the resident.

[b]In life-threatening situations the resident may start life saving procedures before contacting the supervising surgeon or while the surgeon is en route to the hospital.

For intraoperative supervision, we divided operations into four phases: making the initial incision, confirming the diagnosis, performing the surgical procedure, and closing the wound. As the initial incision and the wound closing are generally not as critical as the other two phases, the supervising surgeon may be within 15 minutes of the operating room during those times. When the diagnosis is confirmed and the procedure performed, however, the location of the supervising surgeon depends on the skill and experience level of the resident performing the surgery subject to the following minimum criteria.

For scheduled surgery, the supervising surgeon should be in the operating room when a first-year resident is the surgeon, in the operating room or surgical suite when a resident other than a first-year or a chief resident operates, and within 15 minutes of the operating room when a chief resident operates. A chief resident may supervise a more junior resident in the operating room, but the supervising staff or consulting surgeon should be within 15 minutes of the operating room. The 15-minute response time begins when the supervising surgeon is contacted and ends with the supervising surgeon being appropriately dressed and in the operating room. In most cases, this would require the supervising surgeon to be within the hospital or an adjacent building.

For emergency surgery, the resident should contact the supervising surgeon before surgery. If the chief resident is the surgeon, the supervising surgeon may decide not to go to the hospital but rather remain available by telephone. If a resident other than the chief resident performs the surgery, the supervising surgeon must go to the operating room. In life-threatening situations, the resident may start life-saving procedures

before contacting the supervising surgeon or while the surgeon is en route to the hospital.

The criteria for adequate postoperative supervision include the supervising surgeon seeing the patient and discussing the patient's postoperative treatment with the resident within 24 hours after the operation.

Supervising surgeons must use their judgment to assess the resident's abilities and the operation's complexity and risk before determining the level of supervision. The above criteria are minimums; the supervision should be increased when the complexity and risk of the surgery increases or when the resident performing the surgery lacks the necessary knowledge, skill, or experience.

VA's Criteria Are Less Specific Than GAO's

Although VA's April 1984 changes improved on its previous criteria, the current criteria are still not as specific as ours. Unlike our criteria, VA's criteria do not define appropriate preoperative and postoperative supervision, address the specialty of the supervising surgeon, or generally tie the level of supervision to the case complexity or experience of the resident.

VA's revised criteria improved on its previous criteria by stressing that they contain only minimum requirements for supervision and that the individual VA hospitals should not adopt more liberal policies than those of the affiliated medical center. The new supervision criteria also add the requirement that the supervising surgeon be within 15 minutes of the operating room during surgery. Previous criteria allowed the supervising surgeon to be anywhere in the medical center complex, which could be defined to include an entire medical school campus if the campus were located adjacent to the VA hospital.

Other VA guidance required one supervising surgeon to be assigned to a patient upon hospitalization. VA's revised criteria emphasize that the responsibility for the treatment of the patient and supervision of the residents rests with that surgeon. This is similar to our criteria, which require that one supervising surgeon be responsible for the patient's care throughout his or her hospitalization. However, VA's criteria do not specify that the supervising surgeon be of the appropriate specialty, as ours do. In addition, VA's criteria still state that preoperative and postoperative supervision must be "appropriate" but do not define "appropriate." Our criteria specify that the supervising surgeon should see the patient and discuss the case with the resident.

Regarding intraoperative supervision, VA's criteria identify five levels of intraoperative supervision but leave the decision as to when these levels would be appropriate entirely to the supervising surgeon's judgment. Our discussions with medical and surgical professionals indicated that not all five levels of supervision would be appropriate for residents with little experience or for complex operations. Our criteria specify the minimum supervision appropriate for the level (year) of the resident and allow the supervising surgeons to increase the supervision beyond the level indicated but not to decrease it below that level.

VA's revised criteria also added a provision that exempts residents from supervision if they meet certain requirements. To be exempted, a resident must (1) have a faculty appointment at the affiliated university, (2) be board eligible or board certified, (3) be licensed, and (4) be granted specific clinical privileges through the normal credentialing process at the VA hospital. According to VA central office officials who helped develop these criteria, the exemption was meant to apply to chief residents who have completed one surgical residency program and were currently in another; for example, thoracic residents who have completed a general surgery residency before being accepted in the thoracic program. The exemption would allow those residents to operate on cases in their completed specialty.

Because the new criteria were issued after most of our fieldwork was complete, we did not determine how this provision was being implemented. However, the chief of staff at the West Haven VA hospital indicated that it intended to use the provision to allow general surgery chief residents to function as supervising surgeons. He indicated that many of the fifth-year chief residents would meet the requirements of the provision.

We told the chief of staff that VA central office officials had told us that this application of the provision was not their intent. He said that West Haven would implement the provision as they had interpreted it. However, in March 1985, the hospital's chief of surgery said that they had not exempted and would not exempt chief residents from supervision.

Conclusions

Because VA's criteria are general and open to various interpretations, they do not, in our opinion, provide adequate guidance for supervision of residents. As discussed in chapters 3 and 4, we believe that VA's lack of clear criteria affected the adequacy of supervision and its ability to

monitor because supervising surgeons had different interpretations of adequate supervision.

To have consistently adequate supervision in all VA hospitals, VA should clarify and make more specific its guidance on adequate supervision. Therefore, because our criteria are more specific and less open to interpretation than VA's, we believe VA should revise its criteria to be no less specific than ours.

Recommendation to the Administrator of Veterans Affairs

We recommend that the Administrator direct the Chief Medical Director to revise VA criteria on supervision of surgical residents so that the criteria are no less specific than our criteria. The revised criteria should

- define the "appropriate" actions for preoperative and postoperative supervision,
- relate the five levels of intraoperative supervision to the level of the resident and complexity of the case,
- address the credentials of the supervising surgeon, and
- clarify the provision exempting certain residents from the criteria.

Agency and Other Comments and Our Evaluation

In a September 23, 1985, letter commenting on a draft of this report (see app. VIII), the Administrator agreed with our recommendations to revise VA's criteria to define appropriate actions for preoperative and postoperative supervision and to clarify the provision exempting certain residents from the criteria. He said a directive would be immediately issued to implement the recommendations.

In our draft report, we recommended that VA revise its criteria to address the specialty of the supervising surgeon. VA agreed with the concept but pointed out that a more accurate measure of surgeons' abilities to perform a particular operation is whether they are credentialed to perform that operation. Surgeons may be credentialed to perform operations outside of their specialty; conversely, they may not be credentialed for certain types of operations within their specialty. We agree that surgeons' credentials more adequately reflect the operations they should supervise; therefore, we changed our original recommendation to reflect VA's comments.

VA did not concur with our recommendation to relate the five levels of intraoperative supervision to the level of the resident and complexity of the case. VA stated that such rigid requirements would not allow for

important components of quality education: increased responsibility and decreased supervision as the resident progresses. VA said that only immediate supervisors can adequately assess the degree of supervision required for a particular resident.

We do not believe our criteria for intraoperative supervision are rigid. They merely set the minimum supervision for various levels of residents. The minimum levels recognize the need for decreased supervision as the resident progresses and give the supervising surgeons the flexibility to use their judgment. Within the minimums stated in our criteria, the supervising surgeons should use their judgment to determine the amount of supervision needed by the resident. The supervising surgeons should assess the residents' skills and the complexity of the case and, if necessary, increase the supervision beyond the minimum of our criteria.

VA also argued that, on emergency cases, the supervisor should be contacted before surgery but that the supervisor's presence should be left to his or her judgment. We still believe that because of junior residents' lack of experience and the potential for a misdiagnosis, VA should set minimum requirements stating that if the surgical resident performing the operation is not a chief resident, the supervising surgeon should be present in the operating room. Our criteria allow the resident to perform life-saving procedures while the supervising surgeon is en route to the hospital in a life-threatening situation. Most of the professionals who reviewed our criteria paper agreed with this criterion.

We also received comments on our draft report from three medical schools and two non-VA hospitals. (See apps. IX to XIII.) Two respondents specifically addressed our criteria. The other three addressed technical aspects of the report.

Grady Memorial Hospital was supportive of our criteria but stated that the minimum supervision set out for second- and third-year residents should be increased. In its comments, Grady expressed the hope that VA will take the lead in improving the supervision of residents and that VA's efforts will influence city and county hospitals to do the same.

The University of Tennessee disagreed with our criteria and preferred VA's. The university's comments reflected the same thoughts as VA's—namely, that the supervision of the resident should be left to the judgment of the supervising surgeon.

Again, we point out that our criteria were based on comments from 37 medical and surgical professionals. The levels of supervision set out in the criteria are based on agreement by most of those professionals. The criteria set out only the minimum levels of supervision. Supervising surgeons should use their judgment within those minimums.

VA Hospitals Should Improve Their Enforcement of Supervision Requirements

VA hospitals were supposed to comply with VA's criteria even though w did not believe they were adequate. Therefore, we measured the adequacy of VA's supervision of residents using both VA's and our criteria. The supervision at the VA hospitals we visited varied considerably. Although intraoperative supervision was generally adequate, preoperative and postoperative supervision were inadequate and often did not comply with VA's or our criteria. The responses to our questionnaire from supervising surgeons and residents at 28 randomly selected VA hospitals indicated a lack of compliance throughout the VA system. We believe the lack of compliance occurred because VA had not precisely defined adequate supervision and VA hospital enforcement of VA's supervision requirements differed.

VA's Criteria and Their Enforcement Have Not Assured Adequate Supervision

To measure the adequacy of supervision, we reviewed a total of 148 surgical cases at 10 VA hospitals to see if they met VA's and our criteria for supervision of residents. We found differences in the VA hospitals' enforcement and interpretation of VA's criteria which resulted in little consistency among the VA hospitals.

Table 3.1 shows the percentage of cases reviewed at each VA hospital that met all of our criteria for preoperative, intraoperative, and postoperative supervision. Of the 148 cases reviewed, 51 (34 percent) were in compliance with all of our criteria. None of the VA hospitals complied with all the criteria for all the cases we reviewed.

Table 3.1: Percentage of Cases Reviewed in Compliance With GAO's Criteria for the Three Phases of Surgery[a]

VA Hospital	Preoperative Criteria[b]	Intraoperative Criteria	Postoperative Criteria
Atlanta	46	100	60
Charleston	100	100	85
Kansas City	43	100	23
Loma Linda	42	100	55
Memphis	82	92[c]	93
Palo Alto	46	100	73
Sepulveda	67	100	62
Washington	47	100	79
West Haven	21	36	13
West Los Angeles	18	93	46

[a]In some cases, we were unable to assess compliance because the interviewees did not remember cases; we were unable to interview the supervising surgeon and/or residents due to scheduling conflicts; or we could not resolve differences in responses between interviewees. The percentages do not include the cases where we could not determine compliance or noncompliance (2 cases in the preoperative, 4 in the intraoperative, and 17 in the postoperative phase).

[b]Preoperative supervision criteria apply to scheduled cases only; therefore, we did not include the 17 emergency cases in these percentages.

[c]The noncompliance represents one emergency case.

Compliance With Preoperative Criteria Was Insufficient

We reviewed 131 scheduled cases at the 10 VA hospitals visited for compliance with VA's and our preoperative criteria. The VA criteria required a preoperative note written by a supervising surgeon; our criteria required a note written or countersigned by a supervising surgeon. In addition, our criteria required the supervising surgeon to see the patient and discuss the case with the resident before surgery. VA required the supervision to be "appropriate" but did not define that term.

As table 3.2 shows, we found that most supervising surgeons at these VA hospitals saw the patient and discussed the case with the resident before surgery. However, in 57 cases (44 percent) the supervising surgeon did not write or countersign a note indicating agreement with the residents' diagnosis and treatment plans. Only 33 of the cases (25 percent) were in compliance with VA's criterion for a preoperative note written by a supervising surgeon.

Table 3.2: Compliance With GAO's Preoperative Supervision Criteria

	See the Patient			Discuss the Case With the Resident			Write or Countersign a Note		
VA Hospitals[a]	Cases Complied	Cases Did Not Comply	Unknown	Cases Complied	Cases Did Not Comply	Unknown	Cases Complied	Cases Did Not Comply	Unknown
Atlanta (13)	11	•	2	11	1	1	6	7	
Charleston (14)	14	•	•	14	•	•	14	•	
Kansas City (14)	12	2	•	14	•	•	8	6	
Loma Linda (14)	10	2	2	12	•	2	9	5	
Memphis (11)	11	•	•	11	•	•	9	2[c]	
Palo Alto (13)	10	3	•	11	1	1	6	6	
Sepulveda (12)	12	•	•	12	•	•	8	4	
Washington (15)	13	1	1	14	1	•	8	7	
West Haven (14)	7	6	1	14	•	•	3	11	
West Los Angeles (11)	6	1	4	10	•	1	2	9	
Total (131)	**106**	**15**	**10**	**123**	**3**	**5**	**73**	**57**	

[a]Numbers in parentheses indicate the number of scheduled cases we reviewed.

[b]We could not determine compliance in these cases because the interviewees did not remember the cases; we were unable to interview the supervising surgeon and/or residents due to scheduling conflicts; or we were unable to resolve differences in responses between interviewees.

[c]In these cases, preoperative notes were written by staff surgeons other than the supervising surgeon responsible for the operation.

[d]File could not be located

Most supervising surgeons we talked with did not offer an explanation on why they did not write or countersign preoperative notes. Two supervising surgeons said that the residents were responsible for writing the note, and three told us that they did not know VA required a preoperative note. The chief of surgery at the Palo Alto VA hospital said that getting supervising surgeons to write or countersign preoperative notes was difficult because they did not see the purpose of such notes.

The supervising surgeons did not see the patients before surgery in 15 of the scheduled cases we reviewed. In 13 of those cases, the supervising surgeons said that they did not need to see the patient because the cases were simple. In the other two cases, the supervising surgeon said he participated only in surgery and was not involved in preoperative or postoperative care.

Although overall the VA hospitals we visited had low compliance with the criterion for the supervising surgeon to write or countersign a note, the Charleston and Memphis VA hospitals had high compliance for the

cases we reviewed. These hospitals' high compliance may be due to their emphasis on preparing a preoperative note. At Charleston, the guidance stated that surgery would be canceled if the supervising surgeon had not written a preoperative note, and several operating room nurses mentioned that some operations had been delayed until the note was written. Memphis had a specific form for the preoperative note and indicated that compliance with this criterion had improved since the form had been approved in April 1983.

In addition, when asked about guidance on supervision of residents, seven of the nine supervising surgeons we talked to at Memphis and six of the eight we talked to at Charleston specifically mentioned the requirement for a preoperative note. All of the VA hospitals we visited had guidance requiring preoperative notes written by supervising surgeons. However, no more than three supervising surgeons at each of the other VA hospitals specifically mentioned this requirement when asked about what guidance they are given regarding the supervision of residents.

ntraoperative Supervision Was Generally Adequate

VA's criteria specified five levels of acceptable intraoperative supervision but let the supervising surgeon determine which level was appropriate. Our criteria identified minimum levels of supervision for the various levels of residents. Both required the supervising surgeon to be within at least 15 minutes of the operating room.

Our review of 148 cases at the 10 VA hospitals found a wide variance in the application of VA's intraoperative criteria. As table 3.3 shows, supervision ranged from supervising surgeons being in the operating room for all cases reviewed at one VA hospital, to supervising surgeons being over 15 minutes away in 9 of the 15 cases reviewed at another hospital. At 7 of the 10 VA hospitals we visited, all the cases for which we could determine compliance were in full compliance with our criteria.

Table 3.3: Supervising Surgeon Location During Surgery and Compliance With GAO's Intraoperative Criteria

	Location of Supervising Surgeon During Surgery						Compliance With Intraoperative Criteria for Supervision		
			Within	Over 15 Minutes					
VA Hospitals[a]	in OR[b]	in OR[b] Suite	15 Minutes	Scheduled Surgery	Emergency Surgery	Unknown[c]	Cases Complied	Cases Did Not Comply	Unknow
Atlanta (14)	9	2	•	•	•	3	14	•	
Charleston (15)	14	•	1	•	•	•	15	•	
Kansas City (15)	11	1	2	•	•	1	14	•	
Loma Linda (15)	15	•	•	•	•	•	15	•	
Memphis (15)	6	•	5	•	2	2	12	1	
Palo Alto (15)	15	•	•	•	•	•	15	•	
Sepulveda (14)	14	•	•	•	•	•	14	•	
Washington (16)	8	6	•	•	•	2	16	•	
West Haven (15)	4	•	•	9	1	1	5	9	
West Los Angeles (14)	6	•	5	1	2	•	13	1	
Total (148)	**102**	**9**	**13**	**10**	**5**	**9**	**133**	**11**	

[a]Numbers in parentheses indicate the number of cases we reviewed.

[b]Operating room.

[c]We could not determine location or compliance because of a difference in the responses from interviewees. In some cases, although we could not determine the precise location of the supervising surgeon, we could still determine the compliance. For instance, in one of the cases at the Washington VA hospital, four interviewees said the supervising surgeon was in the operating room and the other three interviewees said he was in the surgical suite. Although we could not determine his exact location, both locations would be in compliance with our criteria.

Overall, 92 percent of the 148 cases we reviewed complied with our criteria for supervision. Table 3.4 shows the criterion that was not met in the 10 scheduled cases and 1 emergency case.

Table 3.4: Criterion Not Met for the Cases Out of Compliance

Number of Cases	Most Senior Resident in Operating Room	Location of Supervising Surgeon	Criterion Not Met
Scheduled			
8	Chief resident	Over 15 minutes away	Supervising surgeon within 15 minutes of operating room
1	Chief resident	In another city	Supervising surgeon within 15 minutes of operating room
1	4th year resident	Over 15 minutes away	Supervising surgeon in surgical suite
Emergency			
1	3rd year resident	In medical center complex	Supervising surgeon in operating room

In the 10 scheduled cases where the supervising surgeon was over 15 minutes away from the operating room, the surgeon did not believe this type of supervision was inadequate. Several supervising surgeons indicated that they believed the residents could handle the case and that if a problem developed the residents would call them.

In one of the cases at the West Los Angeles VA hospital, the two residents in the operating room during the surgery both mentioned that a particular supervising surgeon covered the case, and one resident indicated that the supervising surgeon was available by phone in Los Angeles. However, when that supervising surgeon checked his calendar, he said he was in Chicago during the operation but that he thought another surgeon may have covered the case.

The emergency case that did not meet the intraoperative supervision criteria involved a third-year resident. The supervising surgeon was in the medical center complex and said it was a straightforward procedure and that he was available if needed.

Although three VA hospitals had cases out of compliance, at two of these hospitals the cases appeared to be exceptions rather than the standard practice. At the West Haven VA hospital, however, this was not the case. In nine of the 14 scheduled cases we reviewed, the supervising surgeon was at the medical school, over 15 minutes away. At the Sepulveda VA hospital, which is about 20 minutes from its affiliated medical school, the supervising surgeons were in the operating room during all the cases reviewed.

The West Haven supervising surgeons indicated that the cases we reviewed were typical in that supervising surgeons were usually at the medical school or medical school hospital in either their offices, the laboratory, or the operating room during operations similar to the cases we reviewed. This type of supervision was in compliance with the West Haven staff's interpretation of its written guidance, which considered the medical school part of the medical center complex.

To determine how frequently this occurred, we went beyond our planned methodology and compared the VA hospital's and the medical school hospital's operating room logs for April 1984. We found that during 25 (15 percent) of the 163 operations performed at the VA hospital that involved residents, the supervising surgeons were also responsible for or participating in surgery at the medical school occurring at the same time they were responsible for or participating in surgery at the VA hospital.

West Haven officials agreed with our findings and indicated that they intended to improve the supervision of surgical residents. (See p. 40 for the results of our second visit to West Haven.)

VA Hospitals Had Inadequate Postoperative Supervision

VA's postoperative supervision criteria, like its preoperative criteria, stated that the VA hospitals must provide "appropriate supervision" but did not define that term. Our criteria required the supervising surgeon to see the patient and discuss the patient's treatment with the resident within 24 hours after surgery.

At none of the VA hospitals we visited were all the cases reviewed in compliance with GAO's postoperative criteria. The Memphis VA hospital came closest, with only one case out of compliance. As shown in table 3.5, compliance with the criterion to see the patient within 24 hours after surgery was lower than compliance with the criterion to discuss the case with the resident. However, in nine cases the supervising surgeon neither saw the patient nor discussed the case with the resident.

Table 3.5: Compliance With GAO's Postoperative Supervision Criteria

	See the Patient			Discuss the Case		
VA Hospitals[a]	Cases Complied	Cases Did Not Comply	Unknown[b]	Cases Complied	Cases Did Not Comply	Unknown[b]
Atlanta (14)	6	2	6	11	2	1
Charleston (15)	12	2	1	14	•	1
Kansas City (15)	4	10	1	11	2	2
Loma Linda (15)	7	5	3	11	1	3
Memphis (15)	14	1	•	14	•	1
Palo Alto (15)	11	4	•	13	2	•
Sepulveda (14)	9	4	1	11	3	•
Washington (16)	11	1	4	14	2	•
West Haven (15)	4	11	•	10	2	3
West Los Angeles (14)	6	5	3	8	4	2
Total (148)	**84**	**45**	**19**	**117**	**18**	**13**

[a]Numbers in parentheses indicate the number of cases we reviewed.

[b]We could not determine compliance in these cases because the interviewees could not recall the case, we were unable to interview the supervising surgeon and/or residents due to scheduling conflicts, or we could not resolve differences in responses between interviewees.

In 45 (30 percent) of the 148 cases reviewed, the supervising surgeons said they did not see the patient within 24 hours after surgery. Listed below are typical comments, followed by the number of cases with such comments.

- The supervising surgeons usually did not cover the postoperative phase; they came in only for surgery (3 cases) and preoperative supervision (1 case).
- The supervising surgeons were at the VA hospital only on certain days, which did not include the 24-hour postoperative period (10 cases).
- The supervising surgeons considered the cases minor so they merely spoke to the resident (14 cases).
- The supervising surgeon normally saw patients within 48 hours but not within 24 hours (5 cases).
- The supervising surgeon trusted the residents' ability to take care of patients (3 cases).
- The supervising surgeon was out of town the day after surgery (3 cases).
- The patient had a dressing over the wound, so there was nothing to see (1 case).

In five cases the supervising surgeons offered no comments.

In 18 of the cases reviewed, the supervising surgeon and resident did not discuss the case within 24 hours of surgery as required by our criteria. In nine of those cases, supervising surgeons offered the following comments.

- The supervising surgeons were at the VA hospital only on certain days or they covered only the operation itself (3 cases).
- The cases were minor so discussion was not needed (2 cases).
- The resident was instructed to call if there was a problem (2 cases).
- The supervising surgeon was not in the city during the operation or postoperative care (1 case).
- The surgical residents were not involved in the postoperative care (1 case).

The supervising surgeons did not recall the circumstances in three cases and were not interviewed due to scheduling problems in four cases. In the other two cases, supervising surgeons responded that they had discussed the case with residents but the residents indicated that the cases were not discussed.

The two most frequent reasons given for not seeing the patient and discussing the case postoperatively with the resident were that (1) the cases were minor so the supervisory action was not needed and (2) the supervising surgeon's scheduled workdays at the VA hospital precluded involvement in preoperative, intraoperative, and postoperative supervision.

The supervising surgeons' work schedules led to the noncompliance with our criteria in 14 of the cases we reviewed. Although VA's guidance requires one supervising surgeon to be assigned to a patient, at six of the VA hospitals visited, at least one of the supervising surgeons said he did not meet the postoperative criteria because his part-time schedule precluded it.

In one case at the Sepulveda VA hospital, a consultant who performed a total hip replacement said that he normally did not see patients after surgery; he just supervised or performed surgery. He suggested that we check to see if any other supervising surgeons checked on the patients' condition. A supervising plastic surgeon at the Kansas City VA hospital said that postoperative supervision was inadequate for plastic surgery patients because general surgery residents provided the postoperative care. This supervising surgeon, the VA hospital's only plastic surgeon, was scheduled to work in the hospital about 5 hours a week, while the

one plastic surgery resident at the VA hospital was scheduled to work 2 days a week.

Several hospitals we visited appeared to comply with our criteria even though they used part-time or consultant supervising surgeons. For instance, both Charleston and Memphis had high postoperative compliance for the cases reviewed. Yet, 87.5 percent of Charleston's and 82.1 percent of Memphis' supervising surgeons worked part time. Except for the Washington VA hospital, at all the VA hospitals visited, over 70 percent of their staff surgeons worked part time.

Questionnaire Responses Supported Our Findings

Generally, the supervising surgeon and resident responses to our questionnaire supported our findings at the 10 VA hospitals we visited, and respondents to our questionnaire indicated higher levels of supervision than the respondents of NAS' 1977 study.

Our questionnaire responses indicated that supervision varied among VA hospitals. For instance, at one hospital, only 35 percent of the supervising surgeons and 29 percent of the residents responding said that in a majority of the cases the supervising surgeon sees the patient within 24 hours of the operation. At another hospital, all supervising surgeons and 95 percent of residents who responded said that the supervising surgeon sees the patient within 24 hours.

The questionnaire results also indicated a fairly low compliance with the criterion to write or countersign a preoperative note. About 63 percent of the supervising surgeons and 51 percent of the residents at VA hospitals perceived that supervising surgeons wrote or countersigned preoperative notes in all or almost all cases. We found compliance in only 56 percent of the cases reviewed.

During our visits we found that intraoperative supervision differed among VA hospitals. The questionnaire results also indicated a wide range of intraoperative supervision among VA hospitals. The number of supervising surgeons responding that supervising surgeons were present for the performance of scheduled procedures in all or almost all of the cases ranged from 42 to 100 percent. Resident responses were similar. Overall, 79 percent of the supervising surgeons and 62 percent of the residents responding said the supervising surgeon was present for scheduled procedures in all or almost all cases.

The responses to our questionnaire also supported our findings on postoperative supervision. According to the respondents, the most common postoperative supervision was the supervising surgeon discussing the case with the resident, and postoperative supervisory actions generally occurred less frequently than preoperative and intraoperative actions.

By comparing some of our responses with the results of NAS' questionnaire, we found that supervising surgeons and residents indicated higher levels of supervision in our questionnaire.

NAS reported that 15 percent of full-time and 12 percent of part-time supervising surgeons who responded to its questionnaire thought that there was too little supervision of residents. In response to our questionnaire, 4 percent (3 percent full time and 5 percent part time) said that surgical resident supervision is less than adequate to assure optimal patient care, and 5 percent (3 percent full time and 7 percent part time) said that resident supervision is less than adequate to assure optimal resident education.

In addition, NAS reported that 25 percent of the residents responding said they received inadequate supervision and 41 percent thought that the quality of education was lower at the VA than at the non-VA hospitals. In our questionnaire, 5 percent of the residents responding said that resident supervision is less than adequate to assure optimal patient care and 16 percent said supervision was less than adequate to assure optimal resident education. Twenty-five percent of the residents who had worked at a non-VA hospital also responded that non-VA supervision is somewhat more adequate than VA hospital supervision to assure optimal education.

West Haven: A Case Study in Improving Supervision

The West Haven VA hospital's compliance with our criteria was low for all phases of the patients' treatment. The supervising surgeons at West Haven generally discussed patients with the residents before and after surgery, but many did not see the patients or were not present for surgery. The supervising surgeons on these cases thought this supervision was sufficient.

The West Haven VA hospital director told us that the surgical service had been without a chief for about a year. Before that, one person was both the chief of surgery and chief of staff. In addition, the hospital relied heavily upon part-time and consultant supervising surgeons as it had only two full-time surgeons.

Just before our visit, a new chief of surgery was hired. He described the situation at West Haven as "supervision by phone" and stated that this was unacceptable. He said that to improve supervision, three or four more full-time supervising surgeons were needed, and the medical school would have to emphasize to its part-time and consulting supervising surgeons the importance of supervising surgery at the VA hospital.

About 5 months after our original visit, we returned to West Haven to determine whether the supervision of surgical residents had improved. We randomly selected six cases and interviewed 32 people involved in those cases. Two of the six cases were in total compliance with all our preoperative, intraoperative, and postoperative criteria; two cases were in compliance with all criteria except the supervising surgeon's preoperative note; and two cases (urology and orthopedic cases) were not in compliance because the supervising surgeon was over 15 minutes away during the operation. From these results and the comments we received concerning the general supervision during our second visit, it appears that supervision of surgical residents had improved, except within the urology and orthopedic specialties. Twenty of the 32 people we interviewed indicated that supervision was closer and the supervising surgeon was usually in the operating room except in urology and orthopedic cases.

The chief of surgery recognized that urology and orthopedics still had problems and said that he was in the process of correcting them. He said the problems in urology would be corrected by scheduling the surgery on days when the new part-time surgeon was at the VA hospital. The problem in orthopedics would take longer to correct as the hospital relied totally on part-time and consultant surgeons on the medical school faculty to cover orthopedic surgery and the medical school was having some problems recruiting staff. Some interim measures were taken, such as transferring all emergency surgery in orthopedics to the medical school hospital.

The officials at the VA hospital attributed the improvements in supervision to the efforts of the new chief of surgery. Shortly after our first visit, the chief of surgery and the chief of staff issued memorandums on the supervision of residents which clearly stated that no surgery should take place without the supervising surgeon in the operating room or in the VA hospital. To enforce this guidance, operations were delayed until the supervising surgeon complied. The chief of surgery also convinced the medical school to emphasize the importance of supervising residents at the VA hospital. The VA hospital has also shifted resources within its

budget to allow for two more full-time supervising surgeons and additional part-time supervising surgeons.

Conclusions

Our review of surgical cases at the 10 VA hospitals and the questionnaire results indicated that compliance with our criteria and with VA's criteria varied among VA hospitals. We believe these variations occurred because VA had not precisely defined adequate supervision, and VA hospitals differed in their enforcement of supervision requirements.

The recent West Haven VA hospital experience shows that a VA hospital can improve supervision. Perhaps the most important factors are the people who oversee supervision at the VA hospital—the chief of surgery and the chief of staff—and their definitions of adequate supervision. If these managers do not enforce supervision of residents or do not define adequate supervision, the supervision can be inadequate.

In chapter 2, we discussed VA's criteria and recommended that they be revised to be no less specific than ours. We believe that because VA's criteria were broad and interpreted differently among the VA hospitals, they did not lead to adequate supervision. For instance, some supervising surgeons we interviewed said they did not need to see the patient before or after surgery. These surgeons may have been in compliance with the VA criteria, which merely stated that supervising surgeons must provide "appropriate supervision" for the preoperative and postoperative care of patients. In our opinion, however, such supervision was not adequate to assure high-quality patient care and resident education.

In addition, we believe the VA hospitals' enforcement of VA criteria affected supervision of residents. We noted only a few instances where VA's criteria were enforced. Only one VA hospital we visited enforced VA's requirement for a supervising surgeon's preoperative note, and this was the only hospital where all cases we reviewed were in compliance with the requirement. Also, at six VA hospitals, the chief of surgery allowed noncompliance with VA's criteria by approving part-time and consultant surgeons' schedules that precluded the same surgeon from supervising a resident during all three phases of treatment. To help ensure that all VA hospitals have adequate supervision, we believe the VA hospital chiefs of surgery should enforce VA's criteria by (1) allowing only supervising surgeons whose schedules will permit supervising all three phases of surgery to supervise residents and (2) not allowing surgery to proceed unless the preoperative criteria are met.

Recommendation to the Administrator of Veterans Affairs

We recommend that the Administrator direct the Chief Medical Director to require that VA hospital chiefs of surgery enforce criteria for surgical resident supervision. This enforcement should include

- not allowing surgeons whose schedules do not permit supervising all three phases of surgery to supervise residents and
- not allowing scheduled surgery to proceed unless the preoperative criteria are met.

Agency Comments and Our Evaluation

In his September 23, 1985, letter, the Administrator concurred with the recommendation to not allow surgery to proceed unless the preoperative criteria are met. However, he did not agree with the recommendation requiring that supervising surgeons have schedules that permit them to supervise all three phases of surgery. VA stated that many of its supervising surgeons are part-time employees and that requiring them to supervise all three phases of surgery "represents an ideal situation which is unattainable." VA commented that most surgeons in private practice are members of groups and that the various phases of care might be done by any member of the group.

We believe this criterion is necessary. Our criteria paper, which was developed with input from 37 medical and surgical professionals, states that for quality patient care as well as proper supervision of residents, one supervising surgeon should be responsible for each patient during hospitalization. The American College of Surgeons has this as its only specific criterion on supervision of residents. In addition, VA's guidance supports this criterion. The guidance states that the responsibility for treating the patient and supervising the the resident rests with one supervising surgeon. VA requires one supervising surgeon to be designated as the physician in charge of the patient's treatment. We did not collect information during our review on whether the non-VA surgeons we sampled were in group practices. Therefore we cannot comment on VA's statement.

However, we believe that this requirement is realistic and attainable, as evidenced by our visits to the Charleston and Memphis VA hospitals. At both hospitals, over 80 percent of their surgeons were part time, yet our review of 15 cases at each hospital indicated a high compliance with this criterion. At both Charleston and Memphis, in only 2 of the 15 cases reviewed did the supervising surgeon not supervise all three phases of the patient's hospitalization.

VA Should Improve Monitoring of Surgical Resident Supervision

VA hospitals are required to monitor supervision of surgical residents and to use several means for such monitoring. In our visits to 10 VA hospitals, we found their reviews of supervision varied in quality and quantity. In addition, the responsibility for VA central office's monitoring and follow-up of surgical resident supervision was fragmented among three offices within the central office and the regional directors. As a result, such monitoring was spotty.

VA should revise its guidance to clarify how its hospitals should monitor supervision. The central office should also improve its own monitoring of supervision by assigning primary responsibility for monitoring to the Office of Quality Assurance or the Surgical Services office within the Department of Medicine and Surgery.

VA Hospital Monitoring Efforts Lacked Uniformity

VA recommended that its hospitals document the involvement of the supervising surgeon during surgery to enable the hospital to monitor the adequacy of the intraoperative supervision. We found that 4 of the 10 VA hospitals visited did not follow this recommendation before our visit but had begun the required documentation by the end of fiscal year 1984. In addition, VA hospitals' chiefs of surgery and various quality assurance committees within the hospitals are required to monitor resident supervision. We found that the central office had not provided guidance specifying how to use these mechanisms and the VA hospitals' use of the mechanisms varied both in the number of reviews performed and in the quality of those reviews.

Four Hospitals' Monitoring Systems Did Not Meet Central Office Requirements

The VA guidance on supervision of residents recommended that VA hospitals monitor the supervision of surgical residents by recording the supervising surgeon's name and involvement in surgery in a permanent record, such as the operating room log. Using this as a guideline, the VA hospital chiefs of surgery have been allowed to develop their own monitoring systems. As a result, some hospitals have used the monitoring method suggested by the central office and others have not.

Of the 10 VA hospitals we visited, 6 (Atlanta, Charleston, Kansas City, Sepulveda, West Haven, and West Los Angeles) recorded the name and level of involvement of the supervising surgeon on the operating room log or operation report and sometimes both. The level of involvement was usually recorded through the use of codes representing the five levels of intraoperative supervision indicated in the VA central office guidance.

At the time of our visits, the Memphis, Loma Linda, Palo Alto, and Washington VA hospitals did not record the level of supervision being provided. For instance, at Memphis, the supervising surgeons were recorded as "present" or "available" on the operation report. The locations of supervising surgeons listed as "available" were not recorded. At the Washington hospital, 3 of the 11 operating room nurses interviewed recorded the supervising surgeon as a second assistant on an operation when the supervising surgeon merely looked in on a case, and 2 others indicated they listed the supervising surgeons even if they were not in the operating room. This lack of accurate records did not allow the VA hospital to monitor intraoperative supervision through the medical records, because there was no reliable indication of whether the supervising surgeon was in the operating room, in the surgical suite, in the VA hospital, or elsewhere.

Officials at all four of the above-mentioned hospitals said that they planned to implement a system for recording the level of supervision during surgery. At our final meeting with Memphis officials, they gave us a copy of a revised form for use by the nurses to record the level of supervision during surgery. In addition, the fiscal year 1984 annual reports for the Loma Linda, Palo Alto, and Washington VA hospitals indicated that after our visits, they too had implemented a system to record the level of intraoperative supervision.

VA Hospital Audits of Supervision Vary in Quantity and Quality

VA's guidance stated that (1) the hospitals' chiefs of surgery were responsible for ensuring full supervision of surgical residents at VA hospitals and (2) hospital directors and the chiefs of staff had overall responsibility for seeing that the chief of surgery maintained a system to ensure compliance with the VA criteria on supervision. Each VA hospital was to conduct an annual audit on supervision of surgical residents and send the audit results and a description of the hospital's monitoring system to the central office. The guidance did not specify how to conduct the audit or what aspects of supervision to audit.

In July 1983 testimony before the Senate Committee on Veterans' Affairs, VA's Associate Deputy Chief Medical Director stated that in addition to the annual audit, each VA hospital's quality assurance program reviewed resident supervision. A VA hospital's quality assurance program could identify the supervision of residents as a problem through special audits or through continuous monitoring elements, such as the surgical case (tissue) review, infection control review, blood utilization review, and therapeutic agents and pharmacy review.

VA's guidance requires each hospital to have a quality assurance program[1] and mandates continuous monitoring functions, as well as special audits to review specific problems. However, VA's guidance on the quality assurance program did not specifically require the VA hospitals to include a review of supervision of residents.

In April 1984, VA's new guidance on supervision of residents stated that VA hospitals' monitoring systems should review supervision of residents in all appropriate internal evaluations. The guidance listed two VA hospital committees: the clinical executive board and the quality assurance committee.

As indicated in table 4.1, the 10 VA hospitals used different mechanisms to review supervision of residents. At three hospitals, the chief of surgery relied on the quality assurance mechanisms to monitor supervision, whereas at three others, the chiefs of surgery performed the reviews within their office. At four hospitals, both surgical service and the quality assurance personnel reviewed supervision. The clinical executive board and the quality assurance committee did not perform independent reviews at any of the VA hospitals we reviewed, but rather discussed audits performed by other committees. Generally, the most recent audits performed and evaluated by the 10 VA hospitals that were comparable to our review of supervision at the VA hospital had results similar to ours.

[1]Our report, VA Has Not Fully Implemented Its Health Care Quality Assurance Systems (GAO/HRD-85-57, June 27, 1985), reviewed VA's quality assurance program at 13 VA hospitals and found that they had not implemented the quality assurance programs required by VA's regulations.

Table 4.1: Mechanisms Used to Monitor Supervision in Fiscal Years 1982 and 1983

VA Hospitals Visited	Surgical Office Audits[a]	Quality Assurance Special Audits[a]	Continuous Monitoring Mechanisms
Atlanta	X		
Charleston		X	X
Kansas City		X	X
Loma Linda	X		X
Memphis		X	X
Palo Alto	X		X
Sepulveda	X		
Washington	X		
West Haven	X	X	
West Los Angeles	X		X
Total	**7**	**4**	**6**

[a]Five of the surgical office audits and one of the quality assurance audits were the annual audits required by the VA central office.

Although all of the VA hospitals we visited had reviewed some aspect of supervision of surgical residents through surgical office audits or quality assurance special audits during fiscal years 1982 and 1983, the emphasis and frequency of the reviews differed. For example, the Kansas City VA hospital's quality assurance coordinator conducted two audits during 1983. The focus of these reviews was to determine whether intraoperative supervision was documented. The Memphis VA hospital's quality assurance coordinator conducted three reviews on supervision of surgical residents during 1982 and 1983. One addressed the supervision of emergency cases, and the other two audits focused on the requirement for preoperative and postoperative supervising surgeon notes. Charleston was the only VA hospital visited where the level of intraoperative supervision and preoperative documentation was audited monthly; others reviewed intraoperative supervision less frequently.

In addition, the size and quality of the audits varied. For instance, Memphis' only audit in 1983 on intraoperative supervision consisted of reviewing 12 emergency cases, whereas Atlanta's 1983 audit of the same area included all 3,056 operations performed that year. Both the Memphis and Atlanta VA hospitals evaluated the data collected to determine the adequacy of supervision. On the other hand, for the annual audit of supervision, the West Haven VA hospital compiled data on the level of supervision for all 1,880 fiscal year 1983 operations but did not evaluate the data.

We also reviewed the VA hospitals' use of continuous monitoring mechanisms to monitor the adequacy of resident supervision, including the four reviews specifically mentioned by the Associate Deputy Chief Medical Director in his July 1983 testimony. We found that the only continuous monitoring mechanism used by more than one VA hospital to review supervision of residents was the medical records review. This review was used at 6 of the 10 VA hospitals visited to monitor the number of progress notes by supervising surgeons.

The Charleston VA hospital's tissue review committee audited preoperative and postoperative notes by supervising surgeons in 1983. However, none of the other continuous monitoring reviews specifically cited by the Associate Deputy Chief Medical Director addressed supervision of residents at the VA hospitals reviewed.

At each of the 10 VA hospitals, we reviewed the minutes of the clinical executive board and the quality assurance committee to see if they addressed resident supervision. This topic was addressed by the clinical executive board at all 10 of the VA hospitals we visited and by the quality assurance committee at 4 of those hospitals. Neither the committees nor the boards performed their own reviews but rather reviewed audits on supervision performed by others and/or emphasized the importance of supervision of residents or documentation of supervision.

VA Central Office Monitoring Is Limited

Three central office program offices were responsible for monitoring the supervision of surgical residents at the VA hospitals: Surgical Service, Affiliated Education Programs Service, and Medical Inspector and Evaluation Office (MIEO). However, on March 3, 1985, MIEO was abolished and its functions split between two new offices: the Office of Quality Assurance and the Office of Medical Inspector.

Officials of these offices told us that they can recommend changes at the VA hospitals, but they do not have the authority to enforce the recommendations. The regional directors have direct-line supervision of hospital directors in the regions and have the responsibility to follow up on recommendations contained in internal and external reports.

Surgical Service Had Insufficient Information to Monitor VA Hospitals' Supervision of Residents

As discussed earlier in this chapter, VA's guidance on supervision of residents directs each VA hospital with surgical residents to perform an annual audit on supervision. The results of the audit and a description of the hospital's monitoring system are to be included in a report sent to the VA central office's Surgical Service. The annual report is due at the Surgical Service 30 days after the end of the fiscal year.

The Director of the Surgical Service said he relied on the annual reports to monitor supervision of residents, yet about one-third of the VA hospitals with surgical residents did not submit reports addressing the adequacy of supervision in fiscal years 1983 and 1984, and most reports submitted did not contain adequate information to monitor supervision.

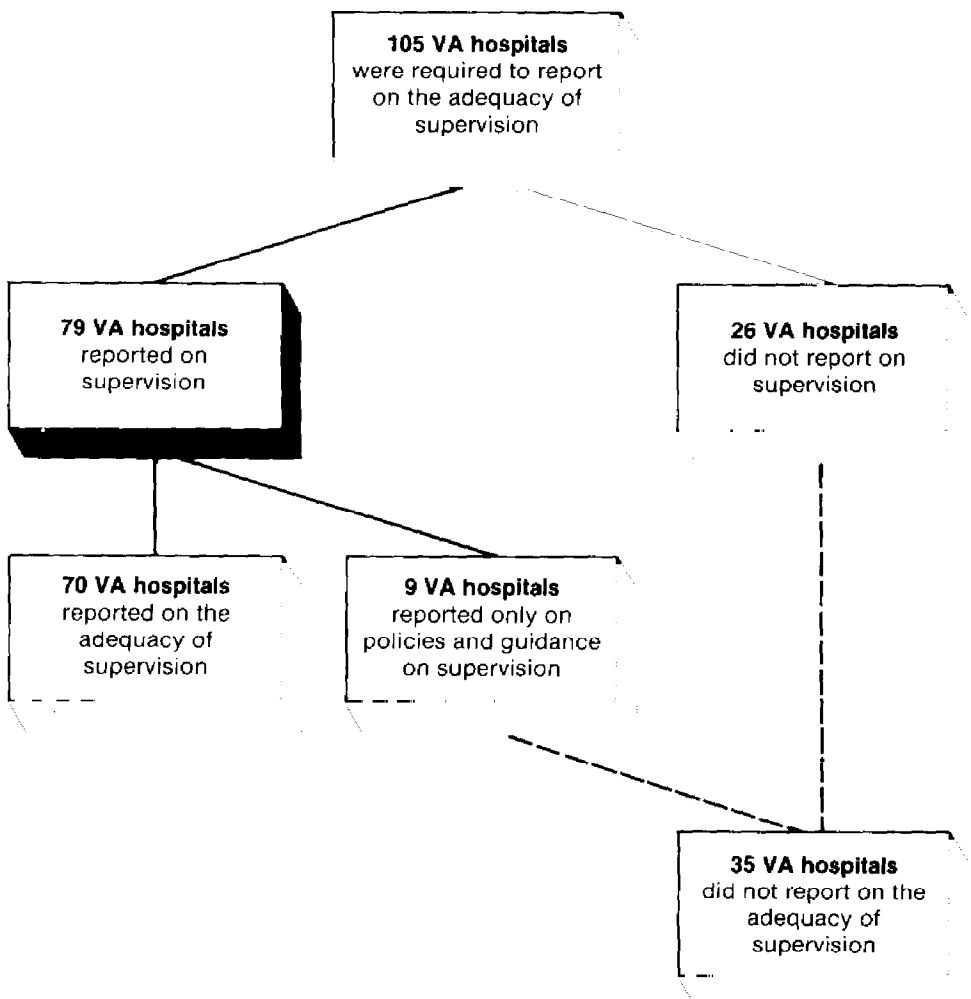
One-Third of the VA Hospitals Did Not Report on an Annual Audit

In fiscal year 1984, 105 VA hospitals had surgical residents and were required to describe their monitoring system and report the results of an audit on supervision. Figure 4.1 shows how many VA hospitals had reported on supervision of surgical residents at the conclusion of our audit work (March 1985) and differentiates between the VA hospitals that sent in results of audits and those that merely made statements on policy or described guidance.

As can be seen in figure 4.1, 35 (33 percent) of the 105 VA hospitals did not submit reports addressing the adequacy of supervision. In fiscal year 1983, 37 percent of the VA hospitals did not submit such reports.

Of the 10 VA hospitals we visited, 2, Kansas City and Washington, did not submit the results of an audit for fiscal years 1982-84. According to the Kansas City chief of surgery, VA's instructions were unclear about what was expected, and the central office did not question the hospital's failure to submit results from an annual audit of supervision. In 1982-83, the Washington VA hospital provided the central office with a copy of the guidance it issued on resident supervision. Again, the chief of surgery stated that he received no feedback from the VA central office on the reports. Although we brought VA's requirement to their attention during fiscal year 1984, neither the Kansas City nor the Washington VA hospital had submitted a report as of March 5, 1985.

Figure 4.1: Breakdown of VA Hospitals Reporting on Supervision in Fiscal Year 1984



The Deputy Director of the Surgical Service, who was responsible for reviewing the 1984 reports, said that he called those VA hospitals that had not submitted reports. However, he said that since the Surgical Service is a staff office rather than a line office, he has no authority to enforce the requirement. The regional directors have that authority, but they do not have the information necessary to enforce the requirement. The Director of the Surgical Service said that the regional directors do

not receive copies of the annual reports and the Surgical Service does not notify the regional directors of missing annual audits.

Most Reports on Annual Audits Do Not Contain Adequate Information to Monitor Supervision

The Director of the Surgical Service said that each VA hospital was allowed to set up its own system to monitor the supervision of its surgical residents and could report the results of its annual audit in any format. He said that the Surgical Service did not give the VA hospitals any guidance on how to monitor the supervision, conduct the audits, or report the results.

We reviewed the fiscal year 1983 reports and compared them to the fiscal year 1984 reports. Because we found the 1983 and 1984 reports to be similar, we did not perform all the detailed analyses on the latter.

The fiscal year 1983 and 1984 annual reports on supervision that were sent to Surgical Service varied considerably. Of the 70 reports submitted for fiscal year 1984 that discussed the adequacy of supervision, 17 addressed supervision during all three phases of treatment, 44 covered some combination of the three phases, and 9 were general statements for which we could not determine what phase they covered. The 1983 reports were similar.

Most of the 1983 and 1984 reports were unclear or did not include enough information for an independent reviewer to evaluate the level of supervision. In fiscal year 1983, only the Iowa City VA hospital included enough information in its annual report to monitor supervision during all three phases of treatment. However, the data format did not allow easy analysis.

The sample sizes used in the VA hospital annual audits varied. For example, in fiscal year 1983, Memphis' data on supervision of surgical residents were taken from a review of 21 cases selected from one month (Memphis reported 5,184 operations during fiscal year 1983), whereas Gainesville used data from all of its operations during fiscal year 1983 (4,137 operations).

In addition, the presentation of audit results varied from general statements on supervision of residents to detailed data on the levels of supervision. Figure 4.2 shows the report submitted by the Clarksburg, West Virginia, VA hospital, which did not indicate how compliance was determined and had little value to an independent reviewer trying to monitor

VA hospitals' supervision. Clarksburg's fiscal year 1984 report was similar.

Figure 4.2: Clarksburg VA Hospital's Report on Supervision for Fiscal Year 1983

> The Surgical Service at the VAMC of Clarksburg, West Virginia is in full compliance with the Circular 10-81-107 concerning Supervision of Surgical Procedures Performed by Resident Physicians, RCS 10CB-14.

Source: Veterans Administration Surgical Service

In fiscal year 1983, 29 VA hospitals used coding systems to describe the level of supervision. However, the systems differed among the VA hospitals, and six hospitals did not define their systems. Figure 4.3 illustrates the annual audit report submitted by the Miami VA hospital that identified the percentage of operations performed at various levels of supervision for each of the surgical specialties. However, neither this report nor Miami's 1984 report defined what the coding system 1-6 represented.

Other VA hospitals used terms to describe the level of supervision, but in seven reports the terms were unclear. For instance, the VA hospitals used the terms "on call," "on station," "on standby," and "ABT" (available by telephone, beeper, or intercom) to describe the supervising surgeon's involvement in the case. None of these terms indicated the surgeon's actual whereabouts, which could have been in the VA hospital, another hospital, their offices, their homes, or elsewhere.

When we asked the Director of the Surgical Service if he knew what some of the terms meant, he said he was not sure. If the coding systems or terms used to describe supervision are not well defined, the Surgical Service cannot use the report for monitoring.

Figure 4.3: Miami VA Hospital's Report on Supervision for Fiscal Year 1983

	CRITERIA FOR STAFF PHYSICIANS					
	1	2	3	4	5	6
General Surgery	1%	36%	18%	6%	31%	8%
Thoracic Surgery	11%	33%	26%	2%	26%	2%
Plastic Surgery	--	23%	39%	2%	31%	5%
Urology Surgery	--	38%	15%	--	46%	--
Orthopedic Surgery	1%	58%	17%	1%	21%	1%
Neurology Surgery	--	77%	14%	4%	4%	--
Ophthalmology Surgery	2%	92%	2%	2%	1%	--
Otolaryngology Surgery	--	61%	17%	2%	20%	--
Pheripheral Vascular Surgery	--	72%	9%	2%	17%	--
Oral Surgery	1%	5%	28%	3%	61%	2%

Source: Veterans Administration Surgical Service

Eleven of the fiscal year 1983 reports addressed documentation of supervision rather than the adequacy of supervision. Figure 4.4 shows the annual report from the Minneapolis VA hospital, which addressed only whether the supervising surgeon was recorded in the operation

report. Reporting on the recording of the supervising surgeon will not enable the Surgical Service to monitor the level of supervision.

Figure 4.4: Minneapolis VA Hospital's Report on Supervision for Fiscal Year 1983

1. All reports of operations performed during the month of September were reviewed for documentation of responsible surgeon. There were 337 operations performed and the operation reports had the responsible surgeon listed. This represents 100% compliance. Below is the breakdown:

	DATE	#OPERATIONS	#Not. DOC.
September	1	15	
	2	21	
	5	4	
	6	15	
	7	18	
	8	16	
	9	14	
	10	3	
	12	15	
	13	16	
	14	17	
	15	16	
	16	18	
	19	14	
	20	16	
	21	13	
	22	12	
	23	16	
	24	1	
	26	19	
	27	15	
	28	11	
	29	14	
	30	18	
	TOTAL	337	0

Source: Veterans Administration Surgical Service

Although only one VA hospital included enough information to monitor supervision during all three phases, other audit reports did include adequate information for the Surgical Service to monitor some aspects of resident supervision at a VA hospital. For example, 21 hospitals included an analysis of supervising surgeons' preoperative notes. At the San Juan, Puerto Rico, VA hospital, the notes were checked to ensure that the supervising surgeon had confirmed the residents' findings, diagnosis, and plan of treatment. However, San Juan's reports did not identify the level of intraoperative supervision. Using well-defined terms or codes, eight VA hospitals reported on an analysis of intraoperative supervision by specialty and level of supervision. This type of analysis gave an indication of the adequacy of supervision.

Figure 4.5 shows part of a report from the Lake City, Florida, VA hospital which presented results of a review of the supervising surgeon's preoperative approval for the operation and the intraoperative supervision provided; postoperative supervision was not addressed by Lake City. The analysis of intraoperative supervision included even the level (year) of the resident in a manner similar to our criteria.

Figure 4.5: Lake City VA Hospital's Report on Supervision for Fiscal Year 1983

	SECTION	MONTH	TOTAL NUMBER OF OPERATIONS PERFORMED	A	B	C	D	E	F
I.	GENERAL SURGERY	Oct.	114	20	64	5	24	1	0
		Nov.	109	7	82	10	9	1	0
		Dec.	96	10	61	0	25	0	0
II.	UROLOGY	Oct.	44	6	38	0	0	0	0
		Nov.	40	16	24	0	0	0	0
		Dec.	27	27	0	0	0	0	0
III.	OPHTHALMOLOGY	Oct.	6	6	0	0	0	0	0
		Nov.	1	1	0	0	0	0	0
		Dec.	6	6	0	0	0	0	0
IV.	DENTAL	Oct.	0	0	0	0	0	0	0
		Nov.	1	1	0	0	0	0	0
		Dec,	0	0	0	0	0	0	0
	TOTAL OPERATIONS		444	100	269	15	58	2	0
	PARTICIPATION %			22.5%	61%	3%	13%	0.45%	0%

CODE

A - Attending, scrubbed and primary surgeon
B - Attending, scrubbed and assisting housestaff
C - Attending, not scrubbed but in room during portion of surgery
D - Attending in O.R. suite or adjacent surgical offices
E - Attending in Medical Center
F - Attending consultation, Emergency

Source: Veterans Administration Surgical Service

Figure 4.5: Lake City VA Hospital's Report on Supervision for Fiscal Year 1983 (Continued)

CRITERIA FOR SUPERVISION OF SURGICAL RESIDENTS

AUDIT CHECK LIST

	YES	NO
1. Staff surgeon in attendance in operating room for major procedures when performed by resident post-graduate year 1 or 2 level.	100%	0%
2. Staff surgeon in attendance or in the operating room for consultation for major procedures when performed by resident post-graduate year 3 level.	100%	0%
3. Staff surgeon in immediate area of the operating room, and immediately available when major procedures performed by resident post-graduate year 4 or 5 level.	100%	0%
4. Staff surgeon has validated residents preoperative findings and approved the surgical procedure.	100%	0%
5. Staff surgeon has approved the operation and was immediately available on surgical procedures performed by residents outside of regular working hours whatever the time.	100%	0%
6. Operation Report (SF-516) indicates responsible staff surgeon in attendance as assistant or immediately available when surgical procedures are performed by residents in the operating room.	100%	0%
7. The operating room log indicates the surgical residents' post-graduate year level and the responsible staff surgeon in attendance.	100%	0%

Source: Veterans Administration Surgical Service

This type of report could be used as an initial check on the supervision at a VA hospital. Any VA hospital where the percentage of cases in compliance with VA's criteria was low or the number of intraoperative cases with the supervising surgeon outside of the operating room or surgical suite was high could be flagged by the Surgical Service for follow-up.

The Director and Deputy Director of the Surgical Service said they do not have established criteria to evaluate the annual reports. The Director, who reviewed the reports before fiscal year 1984, tried to identify improvements from year to year and any data in the reports that seemed unusual. If data indicated a potential problem in supervision, the Director said he called the VA hospital or discussed it with the hospital's chief of surgery during his next visit to the hospital. However, the Director stated he did not visit VA hospitals very often. In March 1985, the Deputy Director of Surgical Service, who was responsible for reviewing the fiscal year 1984 reports, said that he had not yet evaluated them. He was familiarizing himself with the reports and wanted to develop a method to evaluate the information.

The lack of criteria for compliance affected not only the VA central office's evaluation of the reports but also the VA hospitals' internal evaluation of compliance. Through our review of fiscal year 1983 annual reports, we found that VA hospitals interpreted compliance differently. For instance, in the example above, the Lake City VA hospital determined compliance with intraoperative guidance based on the level of the resident. On the other hand, the West Los Angeles VA hospital reported that 97 percent of its operations were adequately supervised because the supervising surgeon was at least in the facility during surgery performed by a resident. However, in about 42 percent of its operations, the supervising surgeon was not in the operating room, and in 78 percent of the urology surgery performed by residents, the supervising surgeon was outside the operating room or surgical suite. According to our criteria, only if a chief resident was present and the operation was not complex would this level of supervision be adequate. However, West Los Angeles did not evaluate the level of the supervision based on the level of the resident and complexity of surgery. Therefore, both Lake City and West Los Angeles could report high compliance with the VA criteria, but because each had a different interpretation of compliance, the adequacy of supervision could differ.

VA's Criteria for Reviewing VA Hospitals' Supervision of Residents Are Vague

MIEO[2] was responsible for assessing quality of care at VA hospitals. This office coordinated and administered the quality assurance program and reviewed reports of incidents that may adversely affect patients during hospitalization. MIEO also periodically conducted reviews through the Systematic External Review Program (SERP), which evaluated the quality of care at VA hospitals. SERP reviews are peer reviews conducted by team members from other VA hospitals, who review services throughout the hospital. SERP reviews include an examination of supervision of surgical residents.

SERP reviews are performed on a 1- to 4-year basis depending on the rating of the VA hospital during the previous SERP review. For instance, a VA hospital rated exemplary in providing quality patient care would be scheduled for a SERP review in 4 years, whereas a VA hospital with severe deficiencies in a patient care area would be scheduled for a review in 1 year.

In May 1984, SERP teams began using improved guidance to evaluate supervision of surgical residents. Before that time, SERP reviews primarily addressed documentation of supervision rather than adequacy of supervision. The new guidance goes beyond documentation and instructs the SERP team to also review the adequacy of the VA hospital monitoring system on resident supervision and the adequacy of supervision during surgery.

The new guidance recognizes that the complexity and degree of risk of the surgery should affect the level of the supervision of residents. However, it does not tie the level of supervision to the level of the resident, as our criteria do. Instead, SERP guidance states that in a "majority of cases," appropriate intraoperative supervision would consist of the supervising surgeon being in the operating room or surgical suite but that, in some cases, the supervising surgeon could be anywhere in the medical center if there was adequate justification. The guidance does not define what justification is needed for the supervising surgeon to be out of the operating room. According to the SERP team leaders, the interpretation of the "justification" needed would be based on the professional judgment of the SERP team member conducting the survey. They agreed that this could lead to varying standards as the team members change from one review to another.

[2]On March 3, 1985, MIEO's evaluation function, including periodic hospital reviews, became the responsibility of the newly created Office of Quality Assurance. The investigation and review of incident reports became the responsibility of the Office of Medical Inspector.

Also, the SERP guidance for reviewing supervision directs the SERP reviewers to review 10 patients' medical records for the level of intraoperative supervision. However, our review of the medical records at the 10 VA hospitals visited indicated that the information on supervision contained in the medical records varied among VA hospitals. At the time of our visits, 4 of the 10 VA hospitals did not have a system for recording the level of intraoperative supervision. Therefore, the SERP reviewers could not assess intraoperative supervision at those hospitals simply by reviewing patients' records.

In addition to the SERP reviews, MIEO was responsible for investigating and reviewing reported incidents that may adversely affect patients during their hospitalization, including deaths during surgery and surgical complications. According to the VA central office official responsible for reviewing these reports, supervision of surgical residents had not surfaced as a problem in any surgical investigations conducted in 1983 or 1984.

Affiliated Education Programs Service Did Not Directly Monitor Supervision of Residents

Although the Affiliated Education Programs Service within the Department of Medicine and Surgery is responsible for monitoring supervision of surgical residents, its only involvement was ensuring that VA hospitals had enough supervising surgeons to meet the residents' training needs. The Service did not focus on the quality of patient care.

The Assistant Chief Medical Director of Academic Affairs, who oversees the Service, said that his staff did not review medical records to determine if supervision was being provided, but they may have reviewed data on the number of supervising surgeons available to train residents. One method they used was to add up for each specialty within a VA hospital the staff surgeons' availability of time to make sure there was at least one full-time equivalent. They said this was not foolproof as two half-time employees may work the same days, leaving no coverage on the other days. The Service also reviewed accreditation letters for residency programs at the VA hospitals and requested the hospitals to indicate corrective action on problems identified by the residency review committees.

While the Affiliated Education Programs Service does not directly review supervision of surgical residents, it may identify VA hospitals with too few supervising surgeons to adequately train residents.

Although this information may be useful for the Service's purposes, adequate staff coverage at VA hospitals does not necessarily result in adequate supervision.

Non-VA Organizations Perform Limited Monitoring of Supervision

In addition to the VA hospital and central office monitoring efforts, the affiliated medical schools, the residency review committees, and JCAH oversee VA hospitals' supervision of residents. The affiliation agreements between the medical schools and VA hospitals indicate that the medical schools will advise the hospital directors and other staff in the supervision of the VA residency programs. In his July 1983 testimony, the VA Associate Deputy Chief Medical Director stated that the residency review committees, which accredit residency programs, assure that supervision at the VA hospitals meets the criteria for approval of the residency program. In addition, four central office officials indicated that JCAH would identify inadequate supervision in its reviews.

We talked with the deans and chairmen of the departments of surgery at the nine medical schools affiliated with the VA hospitals we visited. The medical school officials had differing views on their responsibilities for assuring adequate resident supervision. For instance, officials at the medical school affiliated with the Charleston VA hospital reviewed monthly reports on supervision at the VA hospital. The officials at the medical school affiliated with the Atlanta VA hospital, however, said that the medical school did not monitor supervision. They relied on the VA hospital's chief of surgery to identify problems.

In 1983, VA's Chief Medical Director sent a letter to all deans of the affiliated medical schools requesting that the dean's committee discuss resident supervision at the VA hospitals. All the medical schools we visited discussed supervision of surgical residents within their dean's committees during 1983, and some of the medical schools took an active role in reviewing and ensuring adequate supervision of surgical residents. Medical school officials affiliated with the Charleston VA hospital and the Kansas City VA hospital have received monthly reports on the supervision being provided at those hospitals. The other medical school officials we talked with said they monitored supervision informally, either through residents' comments or through the overlap of part-time supervising surgeons between the medical school and VA hospital.

According to the chair of the department of surgery, the medical school affiliated with the Palo Alto VA hospital felt the same responsibility for

its residents at the VA hospitals as it did for those at the university hospital. He cited an example of a supervising surgeon being removed from the medical school faculty, and therefore from the staff at the VA hospital, because he was not in the operating room at the VA hospital for the critical portion of the operations he was supervising.

However, the other medical schools we visited have generally relied on the VA hospital to identify and correct problems. For instance, officials at the medical school affiliated with the West Los Angeles VA hospital discussed supervision with the VA hospital's chief of surgery but did not obtain data on the level or type of supervision. The officials at the medical school affiliated with the West Haven VA hospital discussed supervision of residents in November 1983 and concluded that it was not a problem. Five months later we found supervision to be inadequate. Once the chief of surgery at the VA hospital told the dean of the medical school that the supervision at the West Haven VA hospital needed improvement, the medical school cooperated in helping to improve the situation.

According to the associate director of the hospital accreditation program of JCAH, its reviews covered many issues and may have addressed supervision of residents. However, JCAH reviewers primarily looked in the medical records for evidence of supervising surgeon involvement. For instance, the JCAH reviewers may have reviewed patients' records for a supervising surgeon's preoperative note. At the 10 VA hospitals we visited, the most recent JCAH reviews did not address the adequacy of supervision of surgical residents, but 3 of the 10 reports commented on poor documentation by professional staff. JCAH had visited the West Haven VA hospital in June 1983 and did not mention a deficiency in supervision in its report.

The residency review committees accredited the residency programs based on information submitted by the medical school and the results of a visit by inspectors. Depending on the committees' needs, the inspectors may be generalists (Ph.D.'s or M.D.'s who can review any of the residency programs) or specialists (doctors trained in the pertinent specialty). The committees generally reviewed a program every 2 to 5 years depending on the specialty and the quality of the program.

Although the residency review committees obtained general information on the supervision of residents, they usually did not perform detailed reviews of supervision. The chairmen of the residency review committees on general surgery and neurological surgery said that through the

visits, the inspectors verify information and obtain perceptions of the residency program. The committees base their approval of the program on the statistical and descriptive information provided by the medical school and the reports of the inspector's interviews with program directors, faculty, residents, and deans.

Based on this information, the residency review committees had identified residency programs at VA hospitals with inadequate supervision. However, none of the most recent reports on the surgical residency programs at West Haven indicated any problems with supervision. The urology residency program at West Haven was most recently approved in February 1983, and ophthalmology and otolaryngology were last approved in 1984. The most recent approval of the other surgical residency programs at the hospital occurred before December 1981.

Conclusions

VA had issued few specific requirements for VA hospital monitoring of supervision; therefore, the frequency and quality of the monitoring varied among hospitals.

In addition, the three offices within the VA central office that are responsible for monitoring the adequacy of supervision of surgical residents had not effectively monitored VA hospitals' activities. The annual audits used by the Surgical Service did not have adequate information to monitor supervision at all VA hospitals. The Affiliated Education Programs Service did not review the adequacy of supervision, and VA's criteria for monitoring supervision were not well defined and could vary, depending on the reviewers' interpretation.

The lack of specific VA guidance on monitoring caused the variance in VA hospitals' monitoring and reporting on supervision. VA's guidance should outline the specifics of an acceptable monitoring system, including the mechanism(s) that should be used to monitor and document supervision. These monitoring requirements should also indicate a standard format for the annual audit sent to the Surgical Service.

VA and ACGME have stated that quality patient care should take precedence over residents' training. Therefore, we believe that either the Office of Quality Assurance or the Surgical Service office should be made primarily responsible for monitoring supervision of surgical residents. The office having primary responsibility should receive all pertinent information on the supervision of residents, including the results of annual audits. The designated office should notify the regional

directors of the VA hospitals not sending in an annual audit on supervision so that the regional directors can enforce this requirement. The periodic SERP reviews should be maintained, with improved criteria, as a check on the VA hospital monitoring systems and the accuracy of VA hospital reports sent to the central office.

If, as recommended in chapter 2, VA revises its criteria for adequate supervision of residents to be at least as specific as ours, the problem of inconsistent interpretation by the VA hospitals and the central office should be alleviated.

Recommendation to the Administrator of Veterans Affairs

We recommend that the Administrator, through the Chief Medical Director,

- designate either the Office of Quality Assurance or the Surgical Service office within the Department of Medicine and Surgery as having the primary responsibility for monitoring supervision of residents and indicate that all pertinent information on such supervision should be given to that office,
- specify and standardize the system(s) the VA hospitals should use to monitor and report on the supervision of surgical residents, and
- direct the regional director to assure that the VA hospitals send the Surgical Service the results of their annual audits of the adequacy of surgical resident supervision.

Agency Comments And Our Evaluation

In his September 23 letter, the Administrator concurred with the above recommendations. He stated that the Surgical Service would be designated as having the primary responsibility for monitoring supervision and that the Service will develop a standardized system of monitoring and reporting for VA hospitals. The monitoring and reporting system and instructions to notify the regional directors of missing annual reports will be incorporated into a VA directive.

Comparison of VA and Non-VA Hospitals' Supervision of Residents

In addition to reviewing supervision at the VA hospitals, we used the results of our questionnaire and our visits to the 15 non-VA hospitals to compare the VA and non-VA hospitals' compliance with our criteria. The questionnaire responses indicated that the level of VA hospitals' supervision was slightly lower than at non-VA hospitals. Postoperative supervision showed the largest differences and intraoperative supervision the smallest differences between non-VA and VA hospital performance of supervisory actions. This was supported by our visits to the 15 non-VA hospitals.

The non-VA supervising surgeons have incentives that seemed to promote adequate supervision of residents. Non-VA surgeons said that the reimbursement requirements of third-party payers, fear of malpractice claims, and private patients' relationships encourage them to perform supervisory actions. The VA hospital supervising surgeons did not have these same incentives.

VA Hospitals' Compliance With GAO's Criteria Was Slightly Lower Than Non-VA Hospitals'

The response to our questionnaire sent to the supervising surgeons and residents at 28 VA hospitals indicated that generally the respondents perceive that supervisory actions occur slightly more frequently at non-VA hospitals than at VA hospitals. In addition, as table 5.1 shows, residents responded that they receive somewhat more supervision at non-VA hospitals than at VA hospitals during all treatment phases. The supervising surgeons' responses showed the same trends.

For each supervisory activity, we also compared each physician's response of how frequently the activity occurred in the VA hospital to that physician's response of how often it occurred in the non-VA hospital. For every supervisory activity, most physicians reported about the same frequency of occurrence in both types of hospitals. However, in all activities but one, of those physicians who did not report the same frequency of occurrence in both types of hospitals, more reported a greater frequency of occurrence in the non-VA hospital than reported a greater frequency of occurrence in the VA hospital. Therefore, as table 5.2 shows, there is a slight but consistent indication that supervision is more extensive in non-VA hospitals than in VA hospitals.

Table 5.1: Resident Questionnaire Responses on VA vs. Non-VA Hospitals' Supervision

Phase of Treatment	Percent of Residents Responding That They Received: Somewhat More Supervision at Non-VA Hospitals	About the Same Amount of Supervision at VA and Non-VA Hospitals	Somewhat Less Supervision at Non-VA Hospitals
Preoperative phase	44	43	13
Intraoperative phase:			
Scheduled cases	35	56	8
Emergency cases	31	56	13
Postoperative phase	42	45	14

Note: Percentages may not add to 100 percent due to rounding.

Table 5.2: Supervising Surgeons' And Residents' Responses on the Frequency of Supervisory Actions

Supervisory Actions	Less Frequently at VA Hospitals: Supervising Surgeons	Less Frequently at VA Hospitals: Residents	About the Same Amount at VA and Non-VA Hospitals: Supersising Surgeons	About the Same Amount at VA and Non-VA Hospitals: Residents	More Frequently at VA Hospitals: Supervising Surgeons	More Frequently at VA Hospitals: Residents
Preoperative:						
Talk to the patient	21	25	77	69	3	6
Examine the patient	16	29	82	66	3	5
Discuss the case with the resident	1	8	98	83	2	9
Write a preoperative note	16	17	79	70	5	14
Intraoperative:						
Supervising surgeon is in the operating room during scheduled surgery	4	13	95	84	1	3
Supervising surgeon is in the operating room during emergency surgery	8	15	90	79	2	6
Postoperative:						
See the patient	29	35	69	60	3	5
Discuss the case with the resident	8	14	90	81	2	5

The cases we reviewed supported the questionnaire results. For the cases we reviewed, VA hospital compliance with our criteria for supervision was somewhat lower than at non-VA hospitals. We reviewed a total of 74 cases (68 scheduled and 6 emergency cases) at 15 non-VA hospitals and compared the results to the 148 (131 scheduled and 17 emergency cases) cases reviewed at the 10 VA hospitals. The results are shown in table 5.3.

Table 5.3: Comparison of Non-VA and VA Hospital Compliance With GAO Criteria

	Cases in Compliance With All:[a]					
	Preoperative Criteria[b]		Intraoperative Criteria		Postoperative Criteria	
Type of Hospitals	Number	Percent	Number	Percent	Number	Percen
Non-VA	41 of 66	62	71 of 73	97	60 of 71	8
VA	66 of 129	52	133 of 144	92	77 of 131	5

[a]Cases for which we could not determine compliance were not included in this analysis.

[b]Applies only to scheduled cases.

Supervising Surgeons' Preoperative Notes Were Lacking at Both VA and Non-VA Hospitals

Similar to the results regarding VA hospital supervision, the questionnaire results indicated lower compliance at non-VA hospitals with the criterion to write or countersign a preoperative note than with the other preoperative criteria. About 72 percent of supervising surgeons and about 52 percent of the residents responding said that supervising surgeons wrote or countersigned preoperative notes in all or almost all cases at non-VA hospitals. The percentages for the supervising surgeon seeing the patient and discussing the case with the resident were higher.

At the 15 non-VA hospitals we visited, in 63 percent of the cases in which we could determine compliance, the supervising surgeon wrote or countersigned a preoperative note; in 96 percent of the cases, the supervising surgeons saw the patient; and in 98 percent, the supervising surgeons discussed the case with the resident preoperatively.

Most supervising surgeons did not explain why they did not write or countersign a preoperative note. However, four supervising surgeons indicated that they signed the patient's history and physical examination, rather than the preoperative note.

The supervising surgeon did not see the patient before surgery on three cases, each at a different hospital. In two cases where the supervising surgeons did not see the patient before surgery, they indicated that these were "chief resident cases" or "service cases." At these hospitals, the general surgery chief residents in the fifth year of a residency program had their own service where they could independently admit the patient and schedule and perform surgery. The chief residents in this service were required only to discuss the case with the supervising surgeon before surgery. The other case in which the patient was not seen by the supervising surgeon was a cataract patient who had been seen by another supervising surgeon during a clinic appointment.

At Non-VA Hospitals the Supervising Surgeon Was Usually in the Operating Room During Surgery

About 83 percent of the supervising surgeons and 75 percent of the residents responding to our questionnaire indicated that in all or almost all scheduled cases at a non-VA hospital, the supervising surgeon was in the operating room during an operation performed by a resident. For scheduled procedures performed by a resident at a VA hospital, about 79 percent of supervising surgeons and about 62 percent of resident respondents indicated the supervising surgeon was in the operating room in all or almost all cases. The responses regarding emergency surgery were similar to those for scheduled surgery.

For the cases we reviewed, the VA hospitals were only slightly behind the non-VA hospitals in percentage of intraoperative compliance with our criteria. As the questionnaire responses indicated, the supervising surgeon was more likely to be in the operating room at a non-VA hospital.

At the 15 non-VA hospitals we visited, 69 of the 72 cases (96 percent) in which we could determine the location of the supervising surgeon, the surgeon was in the operating room during the confirmation of the diagnosis and the performance of the procedure. At the VA hospitals, the supervising surgeon was in the operating room during the confirmation of the diagnosis and performance of the procedure in 102 of the 139 (72 percent) cases in which we could determine the supervising surgeon's location.

In two of the three non-VA cases where the supervising surgeon was not in the operating room, the cases were "chief resident" or "service" cases. The other case was an emergency case.

Two cases were not in compliance with our criteria. One of the chief resident cases was not in compliance because a supervising surgeon was not within 15 minutes of the operating room. At this hospital, once residents were designated as chief residents, they were given the authority to operate alone on certain cases. For instance, if a patient came into a clinic or emergency room and did not have a private physician, the chief resident could offer to be the patient's physician. A hospital official estimated this occurred for about 1 percent of the hospital's patients per year.

The other case of noncompliance with our criteria was an emergency case. This case was performed at a community hospital by a third-year resident, and the supervising surgeon was not notified of the surgery. Instead, the chief resident approved this case. This hospital did not

require the resident to call the supervising surgeon before surgery; the chief resident made the decision to call or not.

Non-VA Hospitals Had a Higher Level of Postoperative Supervision Than VA Hospitals

The questionnaire responses indicated that supervising surgeons and residents perceived that at non-VA hospitals supervising surgeons comply with the postoperative supervisory actions more frequently than at VA hospitals. For instance, 82 percent of the supervising surgeons responding said that supervising surgeons postoperatively discuss the case with the resident in all or almost all cases at non-VA hospitals, whereas 73 percent of them responded that this occurs in all or almost all cases at VA hospitals.

The questionnaire responses indicated that postoperative supervision had the largest difference between non-VA and VA hospital performance of supervisory actions. A much greater proportion of respondents reported more frequent postoperative supervision at non-VA hospitals over VA hospitals than reported more frequent preoperative or intraoperative supervision at VA hospitals.

Our case reviews supported the questionnaire results. The non-VA hospitals visited had a higher compliance rate for postoperative supervision than the VA hospitals we visited, and postoperative supervision showed the largest difference in compliance between the non-VA and VA cases we reviewed. Supervising surgeons postoperatively saw the patients and discussed the cases with the resident in 85 percent of the cases reviewed.

In the eight cases at non-VA hospitals where the supervising surgeons did not see the patient within 24 hours, the supervising surgeons provided the following reasons.

- The resident was allowed to handle the postoperative care either through a personal decision by the supervising surgeon (3 cases) or through hospital policy allowing a chief resident's service (1 case).
- Another supervising surgeon did the postoperative care (2 cases).
- The patient was transferred to another hospital (1 case).

One supervising surgeon gave no explanation.

Non-VA Surgeons Have Incentives to Provide Adequate Supervision

The president of the Association of American Medical Colleges and several non-VA surgeons told us that reimbursement requirements of third-party payers, fear of malpractice claims, and personal relationships with patients motivate supervising surgeons to perform many of the supervisory actions required by our criteria. The VA hospital surgeons do not have the same incentives.

The president of the Association of American Medical Colleges, the executive director of the American Board of Surgery, and others said that most third-party payers would not reimburse supervising surgeons for surgery performed by residents unless the supervising surgeon was in the operating room during the surgery. For instance, Medicare regulations require the supervising surgeon to "be present and ready to perform . . . a major surgical procedure" in order for the surgeon to be eligible for reimbursement or the hospital to be able to collect for the surgeon's salary. The regulations also require the supervising surgeon to "personally examine the patient" and "confirm or revise the diagnosis." In addition, several supervising surgeons indicated that progress notes are required at non-VA hospitals to document supervision for insurance companies.

Three supervising surgeons mentioned concern over malpractice claims as the motivator behind certain supervisory actions at non-VA hospitals. These supervising surgeons said that since they are personally liable for the care, they will be more involved in the patient care (for example, see the patient every day).

Thirteen supervising surgeons indicated that because patients think of them as their primary physician, the supervising surgeons are more involved in the care. The supervising surgeons see the patients in their offices, diagnose the problem, and arrange for the patient to be admitted to the hospital. The resident may have little involvement in the preoperative or postoperative care. Some supervising surgeons indicated that they may be in the operating room or actually perform the surgery because of the relationship with the patient, not because the resident is not qualified.

Supervising surgeons in the VA system do not have these same motivators. VA generally does not obtain reimbursement from third-party payers, VA physicians have greater protection from malpractice

claims (38 U.S.C. 4116),[1] and according to VA's Director of Surgical Service, VA patients often think of the resident rather than the supervising surgeon as their primary physician.

VA has proposed legislation that would enable the agency to collect from private health insurers. In a recent report (Legislation to Authorize VA Recoveries From Private Health Insurance Would Result in Substantial Savings, GAO/HRD-85-24, Feb. 26, 1985), we analyzed concerns raised by the insurance industry and others about this legislation and concluded that VA should not be precluded from recovering costs of medical care for privately insured veterans. We estimated that in fiscal year 1982, VA would have recovered at least $98 million to $284 million from private health insurance. If this legislation is enacted, VA will have to ensure that its supervising surgeons meet the requirements of the private insurers so that VA can receive reimbursement for the surgeons' salaries.

[1]If a VA physician is acting within the scope of his or her duties, the United States, not the physician, is the liable party.

Request Letter

ALAN K. SIMPSON, WYO., CHAIRMAN
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United States Senate
COMMITTEE ON VETERANS' AFFAIRS
WASHINGTON, D.C. 20510

March 3, 1983

Honorable Charles A. Bowsher
Comptroller General of the United States
General Accounting Office
Washington, D.C. 20548

Dear Charles,

The recent press reports (copy of one example enclosed) regarding the medical malpractice suit brought by Mr. Hubert Gaddy relating to surgery performed at the Charleston Veterans' Administration Medical Center in December 1981 raise anew the concerns regarding the supervision of surgical residents in VA medical centers that were expressed by the National Academy of Sciences (NAS) in its 1977 study entitled "Health Care for American Veterans".

In its study, NAS found that "[t]here was no supervision by a full-time or part-time staff surgeon in 69% of operations performed by residents." In light of this finding, NAS made the following recommendation:

> Surgery performed by residents should be supervised by a staff surgeon. A staff surgeon should be present for all regularly scheduled surgery. For emergency surgery, a staff surgeon should be in attendance in no less than 70% of cases. Appropriate procedures for monitoring and reporting on these requirements should be instituted.

The VA concurred generally with this recommendation but expressed the view that "it is not necessary for a senior surgeon to participate in all surgical procedures" and "a requirement that a senior surgeon be present on 70 percent of all emergency cases is unrealistically high".

Although the VA has taken certain actions to carry out this NAS recommendation, as the Chief Medical Director described in a February 19, 1982, letter to me (copy enclosed), I believe that there is a need for a detailed follow-up on this issue that is so vital to the well-being of veterans undergoing surgery in VA medical centers.

Thus, as the Ranking Minority Member of the Committee, I am requesting that you carry out a study, in follow-up to the NAS study and the situation at the Charleston VAMC, on the specific question of the adequacy of the supervision by VA staff surgeons of surgical residents in VA medical centers. At a minimum, your study should address the following issues: the extent to which surgical residents are not being supervised either adequately or at all while conducting surgery; the adequacy of the VA's efforts to address the overall NAS recommendation; the effectiveness of the agency's efforts to ensure uniform compliance throughout the system with directives or guidance from VA

Central Office on this issue; and how the current situation within the VA relating to active supervision of surgical residents compares with the situation in non-VA teaching hospitals. An additional focus of your inquiry should be on the responsibility of dean's committees and others in VA affiliated medical schools for supervision of surgical residents, as an educational function that is inherent in Policy Memorandum No. 2 and affiliation agreements,and on what role do and should affiliated medical school personnel play in establishing and implementing supervision policies and procedures.

In preparation for undertaking this study, I ask that the GAO personnel assigned to carry it out consult with individuals at NAS, including particularly those who had the principal responsibility for the portion of the NAS study on surgery, regarding their approach to the prior study and any recommendations they might have for GAO regarding methodology for carrying out the follow-up study. In addition, I ask that GAO, with advice from NAS regarding possible membership, constitute a panel of physicians, including those both from within and outside the VA, to act as advisers to GAO in the planning and execution of this study. I also believe that it would be appropriate for physicians and others who will be designing and carrying out the study for GAO to discuss the proposed study with individuals on various residency review committees -- including the medical, psychiatry, and surgery committees -- of the Liaison Committee for Graduate Medical Education in order to obtain their views on the general issue of supervision of surgical residents.

Prior to actually beginning the study but after consulting with NAS, I ask that the GAO personnel assigned meet with the Committee Minority staff regarding the proposed methodology, personnel and other resource allocation, and timetable.

The issue of adequate supervision of surgical residents within the VA is a very important one and, in light of the serious problem at the Charleston VAMC, I believe your investigation of this matter should receive priority attention.

Thank you for your continuing assistance. I look forward to working with you in proceeding with this review. Your staff should contact Bill Brew, Minority Counsel, (x42074) regarding this matter.

With warm regards,

Cordially,

Alan Cranston
Ranking Minority Member

Enclosures

cc: Honorable Alan K. Simpson
Honorable Strom Thurmond
Honorable Harry N. Walters
Dr. Donald L. Custis
Dr. Frank Press

Department of Medicine and Surgery — Washington, D.C. 20420

Veterans Administration

FEB 19 1982

Honorable Alan Cranston
United States Senate
Washington, D.C. 20510

Dear Senator Cranston:

Thank you for your letter expressing concern as to standards for surgical supervision in the Veterans Administration.

Medical students, since they are not licensed practitioners, are by definition always under the direct supervision of a licensed physician when participating in direct patient care. This regulation was in force at the time of the Tolliver case. Subsequently, steps were taken at our Minneapolis VA Medical Center to re-emphasize the importance of strict supervision of medical students when participating in the administration of anesthesia, specifically:

1. Medical students, when performing tracheal intubation, will be directly supervised by an anesthesiologist, and

2. The placement of an endotracheal tube by any experienced individual will be visually checked by a supervisor.

Many of our nurse anesthetists are highly trained and have many years of experience in the administration of anesthesia in complex surgical procedures on poor risk patients. They are always, however, under the direct supervision of an anesthesiologist or a surgeon. The support provided by our nurse anesthetists in VA surgical programs is vital for the maintenance of quality care. Their team effort, particularly in programs where full-time anesthesia services are not always available, is absolutely necessary.

As you are aware, the Veterans Administration has formulated detailed directions for the supervision of surgical procedures performed by resident physicians. These are outlined in Circular 10-81-107 which we enclose.

In Reply Refer To: 112

It is important to emphasize that Veterans Administration's Chiefs of Surgical Services are fully responsible for the medical and surgical care rendered their patients. They are, therefore, directed to devise a system of resident supervision that will ensure the best possible surgical results while providing training which will allow each resident to achieve a high level of competence. Explicit directions for the achievement of this goal are embodied in the Circular.

A detailed audit of surgical resident supervision accompanies the Annual Narrative Report of the Surgical Service sent from each VA medical center to VA Central Office, Surgical Service, at the end of the fiscal year. These audits are carefully monitored. If they are found to be incomplete or if they reveal an unsatisfactory level of supervision, the Chief of Surgery is directed to take immediate remedial measures. In cases of serious noncompliance, site visits may be made by responsible surgeons to ensure a proper system of supervision. From the very small number of untoward surgical incidents in such a large health care system, we feel that our methods of surgical supervision are proving to be effective.

As a result of thorough investigation, the text of which we sent you in a previous communication, all anesthesia personnel in the Tolliver case were counseled by the Medical Center Director and Chief of Staff. It was their decision that more punitive action was not warranted.

Thank you for your continuing interest in our veterans.

Sincerely,

DONALD L. CUSTIS, M.D.
Chief Medical Director

Enclosure

Information on VA Hospitals Visited

VA Hospital	Residents Authorized	Surgical Specialties With Residents	Affiliated Medical School	Distance to Medical School	Affiliated Non-VA Hospital
Atlanta, Georgia	20	8	Emory University	2 miles	Grady Memorial
Charleston, South Carolina	18	8	Medical University of South Carolina	Less than 1 mile	
Kansas City, Kansas	20	8	University of Kansas	8 miles	
Loma Linda (Jerry L. Pettis), California	19	6	Loma Linda University	Less than 1 mile	Riverside General
Memphis, Tennessee	31	8	University of Tennessee	Less than 1 mile	Baptist Memorial
Palo Alto, California	20	8	Stanford University	3 miles	Kaiser Permanente, Santa Clara
Sepulveda, California	14	5	University of California at Los Angeles[a]	15 miles	Harbor General
Washington, D.C.[a]	24	7	Georgetown University	5 miles	Fairfax
			George Washington University	4 miles	
West Haven, Connecticut	21	8	Yale University	4 miles	
West Los Angeles, California	40	8	University of California at Los Angeles[b]	2 miles	Harbor General

[a]Washington VA hospital is affiliated with both Georgetown and George Washington universities.

[b]Both Sepulveda and West Los Angeles are affiliated with UCLA.

Methodology Used to Select Cases and Review the Supervision of Surgical Residents

We selected surgical cases at 10 VA hospitals and 15 non-VA hospitals, interviewed all available staff who were present for the surgery, and reviewed the medical records on the cases selected.

Selection of Cases

At each VA hospital, we initially examined the operating room log, the official listing of operations at a hospital, for the week before our visit. We selected recent cases so that staff involved in the case would be more likely to remember the supervision that took place. Since our review covered resident supervision only on inpatient surgery, we eliminated all outpatient surgery and surgery in which a resident did not participate. If the number of applicable operations during the week selected was less than 50, we examined additional days or weeks in the operating room log.

To identify differences in compliance between general and specialty surgery, we wanted our sample to contain both types. Once we had over 50 applicable cases, we separated the general surgery from the specialty surgery cases, and using a random number table, we selected our sample cases from both types of cases.

If our random selection did not include an emergency surgery case, we added one to our sample. We wanted to determine whether compliance with our criteria differed between scheduled and emergency surgery. Because VA hospitals do not usually handle many emergency cases, the emergency case selected was the most recent such case.

At the non-VA hospitals, we made the case selection arbitrarily, rather than randomly. This was necessary because some hospitals did not have a written operating room log, and although most of the hospitals we visited handled numerous operations each week, residents participated in only a small portion of them. Therefore, to save time, we met with a hospital official who recognized the residents' names and we arbitrarily chose operations from the previous week. If the hospital official told us that a resident was involved in surgery and the case was inpatient surgery, we included that case in our sample. We generally selected three general surgery and two specialty cases this way. Six emergency cases were included in our initial sample selections. If an emergency case was not included in our initial selection for a non-VA hospital, we did not add one to our sample.

At some non-VA hospitals, we modified this selection process because of the hospital's concern over patient confidentiality. For instance, at one

hospital we initially selected nine cases, and the first five cases in which the hospital got the patient's oral agreement to let us look at their medical records became our sample.

At three VA hospitals fewer than 15 cases and at two non-VA hospitals fewer than 5 cases were included in our results. This occurred because not all outpatient surgeries or surgeries without resident involvement were eliminated during our case selection. After we started interviewing the staff involved in the operation, we realized that the case involved outpatient surgery and we dropped it from our sample. At one hospital we picked another case to replace the dropped case, but at three hospitals we did not, because our work was almost complete. At two hospitals we also dropped cases because we were unable to interview the supervising surgeons and residents on the case because of scheduling conflicts.

Officials at one non-VA hospital told us that residents receive differing amounts of supervision depending on the supervising surgeon (private or faculty) and the type of patient (private and having own doctor, or not having a specific doctor). Therefore, we selected six cases at this hospital: two from each type of supervision identified by the hospital officials.

Review of Medical Records

At both the VA and non-VA hospitals, we examined available documents, such as the progress notes, operating room log, operating room worksheet, operation report, and anesthesia record or their equivalents for each case selected. Progress notes are daily records of the patient's condition and/or treatment written by a resident or supervising surgeon in the patient's medical records. The operating room log is usually transcribed from the operating room worksheet, which is completed by a nurse during the operation. The operating room log and worksheet list the surgeons (resident and supervising surgeons) for each operation. A resident or supervising surgeon dictates the operation report after the operation. It describes the procedures performed. The anesthesiology staff complete the anesthesia record during the operation. The anesthesia record usually lists the supervising surgeon and the residents in the operating room during surgery.

We reviewed the daily progress notes for the supervising surgeon's preoperative note or countersignature indicating agreement with the diagnosis and treatment plan and the supervising surgeon's involvement in the postoperative treatment phase.

We reviewed the other medical records for an indication of the supervising surgeon's involvement in the surgery. The operating room log, worksheet, operation report, and anesthesia record generally have the supervising surgeon's name, if the supervising surgeon was in the operating room. However, at some hospitals the supervising surgeon's name was also listed if the supervising surgeon was responsible but not in the operating room.

To determine whether the VA hospitals or the VA central office could use the medical records to monitor the adequacy of resident supervision, we first reviewed the records for consistency in recording the supervising surgeon's name. If we found the records to be inconsistent, we concluded that it was not useful to use the records as an indication of the supervising surgeon's involvement. If the records were consistent, we determined the supervising surgeon's role and/or presence in the operating room based on a simple majority of the records. We then compared the role of the supervising surgeon indicated in the medical records to the role of the supervising surgeon determined from the interviews to check the reliability of the medical records for monitoring supervision.

Interviews

On each selected case we tried to talk to the supervising surgeon(s), resident(s), anesthesiology staff, and operating room nurses who were in the operating room during surgery. Generally, a supervising surgeon and one or two residents are involved in the patient's care during all three phases of treatment. In addition, at least one anesthesiologist or nurse anesthetist and two operating room nurses are in the operating room during surgery.

We interviewed the anesthesiology staff and the operating room nurses present in the operating room regarding the supervising surgeon's location and role during surgery on a particular case. In addition, we asked the nurses to explain how they filled out the operating room worksheet and whether it reflected the supervising surgeon's location and/or role. We also asked the anesthesiology staff whether the anesthesia report reflected the presence of the supervising surgeon in the operating room.

We questioned the supervising surgeons and residents about the supervising surgeon's role during the preoperative, intraoperative, and postoperative phases of a patient's treatment. In addition, as the residents usually complete the operation report, we asked them whether that report reflected the supervising surgeon's role.

After we interviewed all the available staff involved in a case, we arrived at a conclusion about the supervision on the case. For the preoperative and postoperative supervision, we accepted the supervising surgeons' word on whether they saw the patient before surgery and within 24 hours after surgery. The supervising surgeons could have seen the patient when the residents were involved elsewhere; therefore, only the supervising surgeons really knew whether they saw the patient. Both the supervising surgeons and residents should have known if they discussed the case with each other, so the conclusion reached on whether they discussed the case was determined using a simple majority of the supervising surgeons and residents interviewed on a case. If there was no simple majority, we said we could not determine whether the case was discussed with the resident.

We determined the intraoperative role and location of the supervising surgeon by assigning points to the people interviewed as follows. If there was no simple majority, we said we could not determine whether the case was discussed with the resident.

- Residents—3 points.
- Supervising surgeons—2 points.
- Anesthesiology staff—1 point.
- Nurses—1 point.

We gave residents the most points because they assume a high degree of responsibility in the patient's surgical care and should be familiar with each case. Also, residents are the individuals for whom supervision is intended; therefore, they should be most aware of whether the supervising surgeon was present in the operating room. We weighted supervising surgeons' testimony second, because their recall of a case should have been as good as the residents. However, supervising surgeons may have an incentive to report that they were present in the operating room. As a result, unless supervising surgeons indicated a lower level of supervision than residents, their testimony was weighted second to the residents. If a supervising surgeon indicated a lesser amount of intraoperative supervision than the other interviewees, we accepted the supervising surgeon's reply as the actual supervision given.

We assigned one point to the testimony of anesthesiologists, nurse anesthetists, and operating room nurses. These persons' roles with the patient are more limited than that of the surgeons because they are generally involved only in the intraoperative phase. Consequently, they

participate in more operations, and their recall of a particular case may be less accurate than the surgeons'.

We totaled the points for each response. The response with the most points became the level of supervision on that case provided at least a three-point spread existed between that response and the next highest total. If the point spread was less than three, we indicated we could not determine the supervising surgeon's role or location on that case. For example, if the two residents and one anesthesiologist (3 + 3 + 1 = 7 points) said the supervising surgeon was in the surgical suite during the operation and the supervising surgeon and two nurses (2 + 1 + 1 = 4 points) said the supervising surgeon was in the operating room, we concluded that the supervising surgeon was in the surgical suite. However, if in the above case the anesthesiologist had said the supervising surgeon was in the operating room (3 + 3 = 6 vs. 2 + 1 + 1 + 1 = 5) we concluded that we could not determine the location of the supervising surgeon.

We also questioned the staff on the supervision that usually occurs at the VA hospital or non-VA hospital. We wanted to determine whether the cases selected were reflective of the usual supervision at the hospital. We totaled these answers and compared them to the conclusions reached on the selected cases.

Check on Past Supervision

Because the VA central office was aware of the request for us to review supervision of residents and we notified the VA hospitals before our visits, we wanted to ensure that the hospitals did not change the supervision just for our visit.

Therefore, at those hospitals where we concluded that the supervision of residents was in compliance with our criteria and the medical records accurately reflected the role of supervising surgeons, we reviewed an additional 15 medical records, randomly selected from a week in February 1983, before the request for our review. We then reviewed the records in the same manner as the first 15 cases, primarily to ensure that they were consistent and then to determine the role of the supervising surgeon. We compared the results of this record review to the review of the first 15 cases and identified differences. At the five VA hospitals where we performed this review, we found no significant differences between the supervision reflected in the two reviews of the medical records. Therefore, it appeared that the VA hospitals visited did not significantly change their supervision during our visits.

Sampling Methodology for Questionnaires

In February 1984, we conducted a survey of both supervising and resident surgeons at selected VA hospitals. The survey consisted of a questionnaire mailed to surgeons, asking for information about their background and perceptions of the type and amount of supervision of surgical residents at VA and non-VA hospitals. (See app. V for a copy of both the supervising and resident surgeon questionnaires with aggregate responses to each item.)

Sampling Plan

To project our results from a sample of VA hospital supervising and resident surgeons to the universe of all VA hospital supervising and resident surgeons, we divided VA hospitals into four strata according to the number of resident surgeons on staff as of April 15, 1982. Then we chose a random proportional sample of hospitals from each stratum. Table IV.1 shows the VA hospitals sampled from each stratum.

Table IV.1: Hospitals Sampled by Stratum

Stratum I (30 or More)	Stratum II (20 to 29)	Stratum III (10 to 19)	Stratum IV (Less Than 10)
Dallas	Augusta	Albany	Biloxi
Hines	Durham	Buffalo	Clarksburg
Long Beach	Gainesville	Cincinnati	Dayton
Oklahoma	Lexington	Des Moines	Mountain Home
Wood	Louisville	Loma Linda	Salem
	Northport	Madison	Tuskegee
	Pittsburgh	Wilmington	West Roxbury
	Richmond		Wilkes-Barre

We sent questionnaires to all supervising and resident surgeons on staff as of October 26, 1983, at each of the hospitals we sampled. Tables IV.2 and IV.3 give the size of the universe and survey and respondent populations for VA resident and supervising surgeons.

Table IV.2: Sampling Plan for Resident Surgeons

	Universe	Survey Sample	Responses	Not Applicable[a]	Undeliverable Questionnaires
Stratum I	544	170	124	4	1
Stratum II	761	182	125	2	9
Stratum III	413	124	97	2	5
Stratum IV	129	49	43	1	1
Strata combined	**1,847**	**525**	**389**	**9**	**16**

[a]Physicians we surveyed who should not have been part of the universe, e.g., anesthesiologists.

Table IV.3: Sampling Plan for Supervising Surgeons

	Universe	Survey Sample	Responses	Not Applicable[a]	Undeliverable Questionnaires
Stratum I	561	180	148	11	3
Stratum II	818	190	144	9	1
Stratum III	451	115	102	7	0
Stratum IV	237	74	55	14	1
Strata combined	**2,067**	**559**	**449**	**41**	**5**

[a]Physicians we surveyed who should not have been part of the universe, e.g., anesthesiologists.

Sampling Errors

We projected our survey results from a sample of VA hospital supervising surgeons and residents to the universe of all VA hospital supervising surgeons and residents. Because these projections were made from a statistical sample of surgeons, each estimate has a sampling error. A sampling error is the most an estimate, derived from a statistical sample, can be expected to differ from the actual universe characteristics we are estimating.

Sampling errors are usually stated at a specific confidence level—in this case 95 percent. This means that the chances are 95 out of 100 that, if we surveyed all VA hospital surgeons, the results would differ from the estimates we have made, based on our sample, by less than the sampling error for that estimate.

For this study the sampling error for each estimate does not exceed plus or minus 12.2 percentage points for supervising surgeons and plus or minus 8.0 percentage points for resident surgeons from all strata. For supervising and resident surgeons combined, the sampling error for each estimate does not exceed plus or minus 7.6 percentage points. This means that the chances are 95 out of 100 that our estimates of supervising surgeons' backgrounds or perceptions will be within 12.2 percentage points of the actual background or perception values. For resident surgeons, they will be within 8.0, and for supervising and resident surgeons combined, they will be within 7.6 percentage points of actual universe values.

Questionnaire Results

This appendix shows how the 389 residents and 449 supervising surgeons who responded to our survey answered each question. For each question, the percentage next to each response is the weighted proportion of residents or supervising surgeons answering the question who chose that particular response. The letter "n" indicates the number of supervising surgeons or residents who answered each question.

Many of the questions required responses in one of five categories: "in 0-19% of the cases," "in 20-39% of the cases," "in 40-59% of the cases," "in 60-79% of the cases," and "in 80-100% of the cases." To simplify reporting the questionnaire results in our narrative, we chose descriptive phrases to use in place of the percentages in the five categories. These phrases are: in a few if any cases, in some cases, in about half of the cases, in a majority of cases, and in all or almost all cases.

U.S. GENERAL ACCOUNTING OFFICE
SURVEY OF ATTENDING
SURGEONS AT VETERANS
ADMINISTRATION MEDICAL
CENTERS

/ / / / / / (1-5)

INTRODUCTION

The U.S. General Accounting Office, an agency of the Congress, is conducting a review of resident surgeon supervision at Veterans Administration Medical Centers (VAMCs). In addition to visiting several VAMCs, we're asking attending surgeons at Veterans hospitals to respond to this questionnaire about surgical resident supervision and other hospital practices.

Your candid and objective responses are essential in order for us to provide the Congress with an informative report on this subject. All information you provide will be kept confidential. The number on this questionnaire will be used in our follow-up efforts. It will be separated from your responses before we begin our data analysis to protect the confidentiality of the information you provide. Please note the skip instructions next to specific responses in several questions. They will help you avoid others that might not pertain to you. Disregard numbers in parentheses. They are codes for for keypunching.

Please complete the questionnaire and return it in the enclosed envelope within 2 weeks from receipt, if possible. If you have any questions call Michelle Roman collect at (202) 389-5287. She will be happy to help you.

Thank you for your cooperation. In the event that the return envelope is misplaced, the return address is:

U.S. General Accounting Office
VA Audit Site
1425 K Street, N.W.
Washington, D.C. 20420

BACKGROUND INFORMATION

1. Are you currently a staff surgeon at a VAMC? (CHECK ONE.) n=448 (6)

   1. [ ] Yes ➡(SKIP TO 3.) 96.8
   2. [ ] No 3.2

2. Approximately when were you most recently a staff surgeon at a VAMC? (ENTER THE LAST MONTH AND YEAR YOU HELD YOUR MOST RECENT VAMC POST.) (7-10)

   _____
   month / year

3. What is the name of the VAMC where you are currently a staff surgeon? If you are not currently a VAMC staff surgeon, enter the name of the VAMC where you most recently were.

   _____
   VAMC

   / / / (11-12)

4. For approximately how long have you been/were you a staff surgeon at this VAMC? (CHECK ONE.) n=447 (13)

   1. [ ] Less than 1 year 12.8
   2. [ ] At least 1 year but less than 2 11.6
   3. [ ] At least 2 years but less than 3 8.5
   4. [ ] At least 3 years but less than 4 9.4
   5. [ ] At least 4 years but less than 5 10.7
   6. [ ] 5 years or more 47.1

5. What is/was your primary surgical specialty at this VAMC? (CHECK ONE.) n=449 (14-15)

01. [ ] General 28.1
02. [ ] Colon & Rectal 0.0
03. [ ] Neurological 7.1
04. [ ] Ophthalmology 12.5
05. [ ] Orthopedic 13.0
06. [ ] Otolaryngology 10.6
07. [ ] Plastic 6.2
08. [ ] Thoracic 8.7
09. [ ] Urology 9.6
10. [ ] Other (Specify.) 0.2

Vascular 4.0

6. Are you certified for this surgical specialty by an American Surgical Specialty Board? (CHECK ONE.) n=444 (16)

1. [ ] Yes, certified 89.1
2. [ ] No, eligible but not certified 10.2
3. [ ] No, neither certified nor eligible 0.7

7. Do you have a faculty appointment at a medical school? (CHECK ONE.) n=441 (17)

1. [ ] Yes 96.2
2. [ ] No 3.8

8. Do/did you supervise residents in your specialty at this VAMC? (CHECK ONE.) n=448 (18)

1. [ ] Yes ▶(CONTINUE.) 99.7
2. [ ] No ▶(STOP HERE AND RETURN THIS QUESTIONNAIRE. THERE IS NO NEED TO COMPLETE THE REMAINING QUESTIONS. IT IS IMPORTANT, HOWEVER, TO RETURN THIS QUESTIONNAIRE.) 0.3

SURGICAL STAFF EXPERIENCE AT A VAMC

Answer questions 9 through 16 in relation to your current surgical staff experience at a VAMC. If you are not currently a VAMC staff surgeon, answer these questions in relation to the VAMC where you most recently were.

9. What fraction of time are/were you employed by the VA? (CHECK ONE.) n=445 (19)

1. [ ] 1/8 17.1
2. [ ] 1/4 9.8
3. [ ] 3/8 6.0
4. [ ] 1/2 11.2
5. [ ] 5/8 18.0
6. [ ] 3/4 2.9
7. [ ] 7/8 11.2
8. [ ] Full-time 22.2
9. [ ] Other (specify) 1.6

10. Listed below are activities an attending surgeon might engage in during a patient's preoperative phase of treatment. Consider attending surgeons in your specialty at the VAMC. Approximately how often, if ever, do they engage in each activity when a resident is involved in a patient's care? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. Talk to the patient n=447	4.9	8.9	13.5	14.3	58.4	(20)
2. Examine the patient n=447	3.7	7.5	12.6	15.6	60.6	(21)
3. Review the medical records n=442	4.9	5.0	9.3	16.3	64.6	(22)
4. Consult with the resident about the patient's diagnosis and treatment n=445	1.0	0.5	0.5	6.8	91.2	(23)
5. Write or countersign the preoperative note n=444	14.6	6.1	6.3	10.4	62.6	(24)

11. Listed below are activities an attending surgeon might engage in during a patient's postoperative phase of treatment. Consider attending surgeons in your specialty at the VAMC. Approximately how often, if ever, do they engage in each activity when a resident is involved in a patient's care? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. See the patient within 24 hours after surgery n=447	12.4	14.2	12.2	17.8	43.3	(25)
2. Examine the patient within 24 hours after surgery n=446	14.1	14.9	14.6	20.3	36.1	(26)
3. Review the medical records within 24 hours after surgery n=446	19.3	19.6	15.0	19.5	26.7	(27)
4. Consult with the resident within 24 hours after surgery about the patient's condition and treatment plan n=446	5.0	3.2	3.8	14.9	73.0	(28)
5. Write or countersign the postoperative note n=445	33.8	10.3	11.6	14.6	29.8	(29)

12. Listed below are actions that usually occur during surgical procedures. Consider attending surgeons in your specialty at the VAMC. Approximately how often, if ever, are they in the operating room during elective (as opposed to emergency) surgery when a resident performs the surgery? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeon in operating room when:		In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
		1	2	3	4	5	
1. The anesthesia is administered	n=444	13.9	12.8	17.7	18.3	37.3	(30)
2. The initial incision is made	n=444	3.4	9.3	15.3	15.2	56.7	(31)
3. The diagnosis is confirmed	n=441	0.7	1.5	5.1	14.8	77.9	(32)
4. The surgical procedure is decided	n=437	0.9	0.2	4.3	10.0	84.6	(33)
5. The surgical procedure is performed	n=445	0.7	1.4	4.9	13.9	79.1	(34)
6. The wound is closed	n=445	16.0	18.7	17.7	24.6	23.0	(35)

13. Listed below are actions that usually occur during surgical procedures. Consider attending surgeons in your specialty at the VAMC. Approximately how often, if ever, are they in the operating room during emergency surgery when a resident performs the surgery? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeon in operating room when:		In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
		1	2	3	4	5	
1. The anesthesia is administered	n=438	14.8	12.5	14.3	16.1	42.3	(36)
2. The initial incision is made	n=438	7.8	10.4	12.4	12.3	57.1	(37)
3. The diagnosis is confirmed	n=433	3.7	3.5	10.9	11.2	70.6	(38)
4. The surgical procedure is decided	n=433	3.2	3.1	8.9	11.4	73.4	(39)
5. The surgical procedure is performed	n=437	3.5	3.2	9.5	11.4	72.4	(40)
6. The wound is closed	n=439	22.5	14.8	15.0	21.1	26.6	(41)

14. We would like to know the amount of supervision VAMC surgical residents receive. By amount of supervision we mean the frequency of communication between attending and resident surgeons about cases, and the frequency of observation of residents by attendings. Do attending surgeons in your specialty at the VAMC communicate with/observe resident surgeons more often than, as often as, or less often than needed during each of the phases described below? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	Much more often than needed	Somewhat more often than needed	About as often as needed	Somewhat less often than needed	Much less often than needed	
	1	2	3	4	5	
1. Communicate with residents during the preoperative phase n=446	10.3	20.6	65.6	1.5	2.0	(42)
2. Observe residents during the preoperative phase n=445	9.5	16.8	66.6	5.1	2.0	(43)
3. Communicate with residents during the intraoperative phase n=445	18.3	24.1	55.8	0.9	1.0	(44)
4. Observe residents during the intraoperative phase n=445	19.5	25.6	52.4	1.6	0.9	(45)
5. Communicate with residents during the postoperative phase n=445	6.9	16.4	69.7	5.6	1.4	(46)
6. Observe residents during the postoperative phase n=445	6.1	10.9	69.2	12.3	1.6	(47)

15. Has the VAMC provided you with written and/or oral guidance describing VAMC practices and procedures regarding surgical resident supervision? (CHECK ONE BOX IN EACH ROW.)

	Yes	No	
	1	2	
1. Received written guidance n=434	64.8	35.2	(48)
2. Received oral guidance n=425	75.8	24.2	(49)

16. Based on your experience, is VAMC surgical resident supervision more than, about, or less than adequate to assure optimal patient care and resident education? (CHECK ONE BOX FOR EACH ROW.)

	More than adequate	About adequate	Less than adequate	
	1	2	3	
1. Assure optimal patient care n=447	58.8	37.4	3.8	(50)
2. Assure optimal resident education n=446	56.4	38.9	4.7	(51)

SURGICAL RECORDS

Question 17 concerns the accuracy with which VAMC surgical records reflect what occurs during surgery. Once again, answer this question based on your current experience at a VAMC. If you are not currently a staff surgeon at a VAMC, answer it in relation to your most recent VAMC surgical post.

17. Listed below are operative report and operating room log entries.

Part A: Based on your experience, in approximately what proportion of VAMC surgical cases are each of these entries recorded? (CHECK ONE BOX FOR EACH ROW.)

PART B: When each entry is recorded, in approximately what proportion of cases is it recorded accurately? (CHECK ONE BOX FOR EACH ROW.)

	PART A: RECORDED?						PART B: RECORDED ACCURATELY?				
	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases		In most cases	In some case	In few, if any, cases		
	1	2	3	4	5		1	2	3		
1. Name of attending surgeon in operative report n=437	1.0	0.5	2.4	4.4	91.7	(52)	95.2	3.2	1.6	(56)	n=433
2. Involvement of attending surgeon is noted in operative report n=432	9.6	1.7	6.2	11.4	71.2	(53)	86.2	9.1	4.7	(57)	n=420
3. Name of attending surgeon in operating room log n=431	1.0	0.4	1.8	2.2	94.6	(54)	93.4	4.1	2.5	(58)	n=428
4. Involvement of attending surgeon is noted in operative room log n=416	6.6	0.9	3.3	5.2	84.0	(55)	89.4	6.6	4.0	(59)	n=414

SURGICAL POSITIONS AT OTHER VAMCS

18. Within the past 3 years, have you held a surgical staff position supervising residents at a VAMC other than the one you noted in question 3? (CHECK ONE.) n=447 (60)

1. [ ] Yes 5.8

2. [ ] No ➤(SKIP TO 21.) 94.2

19. Based on your VAMC experience within the past 3 years, would you say the frequency of communication between attending and resident surgeons, and the frequency of observation of residents by attending surgeons varies little, somewhat, or greatly from VAMC to VAMC? (CHECK ONE BOX FOR EACH ROW.)

	Varies little, if any	Varies somewhat	Varies greatly	
	1	2	3	
1. Frequency of communication between attending and resident surgeons n=33	25.8	41.9	32.4	(61)
2. Frequency of observation of residents by attending surgeons n=32	36.1	30.6	33.3	(62)

20. Please describe the variation, if any.

SURGICAL STAFF POSITIONS AT NON-VA HOSPITALS

21. Within the past three years, have you held, or are you currently holding, a staff position supervising residents in your surgical specialty at a non-VA hospital? (CHECK ONE.) n=441 (63)

1. [ ] Yes, currently staff surgeon at a non-VA hospital 71.0

2. [ ] Yes, have been a staff surgeon at a non-VA hospital in the past 3 years, but not currently 4.7

3. [ ] No, have not been a staff surgeon at a non-VA hospital during the past 3 years ➤(SKIP TO 32.) 24.3

22. Check the type of non-VA hospital where you have had the most experience as a staff surgeon during the past 3 years. (CHECK ONE.) n=322 (64)

1. [ ] University medical center 77.7

2. [ ] Private hospital other than university medical center 10.1

3. [ ] Public hospital other than VAMC (Please specify.) 10.6

4. [ ] Other (Please specify.) 1.3

* ➤PLEASE NOTE: Answer questions 23 through 31 in relation to the non-VA hsopital where you have had the most surgical experience during the past three years.

23. Listed below are activities an attending surgeon might engage in during a patient's preoperative phase of treatment. Consider attending surgeons in your specialty at this non-VA hospital. Approximately how often, if ever, do they engage in each activity when a resident is involved in a patient's care? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. Talk to the patient n=326	2.1	3.5	7.0	12.5	74.9	(65)
2. Examine the patient n=327	1.5	3.8	7.6	12.4	74.7	(66)
3. Review the medical records n=327	2.7	2.8	6.1	15.0	73.3	(67)
4. Consult with the resident about the patient's diagnosis and treatment n=327	0.0	0.3	1.5	4.5	93.8	(68)
5. Write or countersign the preoperative note n=326	7.7	6.7	5.8	8.2	71.6	(69)

24. Listed below are activities an attending surgeon might engage in during a patient's postoperative phase of treatment. Consider attending surgeons in your specialty at this non-VA hospital. Approximately how often, if ever, do they engage in each activity when a resident is involved in a patient's care? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. See the patient within 24 hours after surgery n=327	4.7	6.2	9.9	12.0	67.2	(70)
2. Examine the patient within 24 hours after surgery n=327	5.8	7.4	10.8	14.1	61.9	(71)
3. Review the medical records within 24 hours after surgery n=327	10.8	8.9	10.5	17.9	51.9	(72)
4. Consult with the resident within 24 hours after surgery about the patient's condition and treatment plan n=327	2.0	1.1	2.5	12.1	82.3	(73)
5. Write or countersign the postoperative note n=326	18.1	5.5	10.3	11.1	55.0	(74)

1 (80)
Dup. (1-5)

25. Listed below are actions that usually occur during surgical procedures. Indicate how often, if ever, attending surgeons in your specialty at this non-VA hospital are in the operating room during elective (as opposed to emergency) surgery when a resident performs the surgery. (CHECK ONE BOX FOR EACH ROW.)

Attending surgeon in operating room when:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. The anesthesia is administered n=328	13.0	10.8	13.5	23.6	39.1	(6)
2. The initial incision is made n=327	3.9	7.4	13.9	17.4	57.3	(7)
3. The diagnosis is confirmed n=322	0.3	0.5	4.0	13.4	81.8	(8)
4. The surgical procedure is decided n=320	0.9	0.3	2.1	7.9	88.8	(9)
5. The surgical procedure is performed n=326	0.6	0.8	3.5	11.7	83.4	(10)
6. The wound is closed n=327	16.7	14.7	20.0	20.5	28.1	(11)

26. Listed below are actions that usually occur during surgical procedures. Indicate how often, if ever, attending surgeons in your specialty at this non-VA hospital are in the operating room during emergency surgery when a resident performs the surgery. (CHECK ONE BOX FOR EACH ROW.)

Attending surgeon in operating room when:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. The anesthesia is administered n=325	13.5	9.1	17.1	19.6	40.8	(12)
2. The initial incision is made n=326	3.5	11.5	12.4	16.1	56.6	(13)
3. The diagnosis is confirmed n=320	1.3	1.8	9.1	12.3	75.5	(14)
4. The surgical procedure is decided n=321	1.0	2.1	6.8	10.6	79.5	(15)
5. The surgical procedure is performed n=324	1.0	2.0	8.2	13.5	75.3	(16)
6. The wound is closed n=326	20.5	14.1	16.9	17.5	31.0	(17)

27. We would like to know the amount of supervision non-VA surgical residents receive. By amount of supervision we mean the frequency of communication about cases between attending and resident surgeons, and the frequency of observation of residents by attending surgeons. Do attending surgeons in your specialty at this non-VA hospital communicate with/observe residents more often than, as often as, or less often than needed during each of the phases described below? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	Much more often than needed	Somewhat more often than needed	About as often as needed	Somewhat less often than needed	Much less often than needed	
	1	2	3	4	5	
1. Communicate with residents during the preoperative phase n=325	12.2	21.8	61.7	2.3	2.0	(18)
2. Observe residents during the preoperative phase n=324	11.1	20.1	60.2	6.6	1.9	(19)
3. Communicate with residents during the intraoperative phase n=325	15.7	25.7	57.2	0.6	0.7	(20)
4. Observe residents during the intraoperative phase n=325	16.1	26.6	55.6	1.1	0.7	(21)
5. Communicate with residents during the postoperative phase n=325	10.7	20.7	63.4	3.9	1.3	(22)
6. Observe residents during the postoperative phase n=324	7.9	18.3	64.5	8.0	1.3	(23)

28. Has this non-VA hospital provided you with written and/or oral guidance describing its practices and procedures regarding surgical resident supervision? (CHECK ONE BOX FOR EACH ROW.)

	Yes	No	
	1	2	
1. Received written guidance n=315	31.9	68.1	(24)
2. Received oral guidance n=316	55.6	44.4	(25)

29. Based on your experience, is surgical resident supervision at this non-VA hospital more than, about, or less than adequate to assure optimal patient care and resident education? (CHECK ONE BOX FOR EACH ROW.)

	More than adequate	About adequate	Less than adequate	
	1	2	3	
1. Assure optimal patient care n=327	61.6	37.2	1.2	(26)
2. Assure optimal resident education n=327	59.5	37.4	3.1	(27)

30. Consider the four phases of treatment listed below. Based on your experience, do resident surgeons at non-VA hospitals receive somewhat more, about the same amount, or somewhat less supervision during each than resident surgeons at VAMCs? (CHECK ONE BOX FOR EACH ROW.)

	Non-VA residents receive somewhat more supervision than VAMC residents	Non-VA residents receive about the same amount of supervision as VAMC residents	Non-VA residents receive somewhat less supervision than VAMC residents	
	1	2	3	
1. During the preoperative phase of treatment n=326	30.4	59.1	10.5	(28)
2. During the postoperative phase of treatment n=326	31.0	58.8	10.3	(29)
3. During scheduled surgery n=326	18.5	75.3	6.2	(30)
4. During emergency surgery n=326	19.9	74.2	5.9	(31)

31. Consider how well surgical resident supervision assures optimal patient care and resident education. Based on your experience, would you say that non-VA hospital surgical resident supervision is somewhat more adequate than, about as adequate as, or somewhat less adequate than the VAMC's in each respect? (CHECK ONE BOX FOR EACH ROW.)

	Non-VA supervision somewhat more adequate than VAMC	Non-VA supervision about as adequate as VAMC	Non-VA supervision somewhat less adequate than VAMC	
	1	2	3	
n=326 1. To assure optimal patient care	15.1	81.7	3.2	(32)
2. To assure optimal resident education n=326	14.0	79.1	6.9	(33)

2(80)

32. Please enter any additional comments you might have about surgical resident supervision at VA or other hospitals in the space below or on the back of this page.

U.S. GENERAL ACCOUNTING OFFICE
SURVEY OF PHYSICIANS WHO
HAVE SERVED SURGICAL RESIDENCIES
AT VETERANS ADMINISTRATION
MEDICAL CENTERS

/ / / / / / (1-5)

INTRODUCTION

The U.S. General Accounting Office, an agency of the Congress, is conducting a review of resident surgeon supervision at Veterans Administration Medical Centers (VAMCs). In addition to visiting several VAMCs, we are asking individuals who are or were serving surgical residencies at Veterans hospitals to respond to this questionnaire about surgical resident supervision and other hospital practices.

Your candid and objective responses are essential in order for us to provide the Congress with an informative report on this subject. All information you provide will be kept confidential. The number on this questionnaire will be used in our follow-up efforts. It will be separated from your responses before we begin our data analysis to protect the confidentiality of the information you provide. Please note the skip instructions next to specific responses in several questions. They will help you avoid others that might not pertain to you. Disregard numbers in parentheses. They are codes for keypunching.

Please complete and return the questionnaire within 2 weeks from receipt if possible. If you have any questions call Michelle Roman collect at (202) 389-5287. She will be happy to help you.

Thank you for your cooperation. In the event that the return envelope is misplaced, the return address is:

U.S. General Accounting Office
VA Audit Site
1425 K Street, NW
Washington, DC 20420

BACKGROUND INFORMATION

1. In what year of residency are you? (CHECK ONE.) n=388 (6)

1.	[ ]	1st	16.3
2.	[ ]	2nd	18.8
3.	[ ]	3rd	20.2
4.	[ ]	4th	16.4
5.	[ ]	5th	15.2
6.	[ ]	6th	7.8
7.	[ ]	Other (Specify.)	5.2

2. What type of surgical residency program are you currently in? (CHECK ONE.) n=389 (7-8)

01.	[ ]	General	45.1
02.	[ ]	Colon & Rectal	.2
03.	[ ]	Neurological	3.9
04.	[ ]	Ophthalmology	12.1
05.	[ ]	Orthopedic	12.5
06.	[ ]	Otolaryngology	8.8
07.	[ ]	Plastic	4.0
08.	[ ]	Thoracic	2.9
09.	[ ]	Urology	9.8
10.	[ ]	Other (Specify.)	.5

Vascular .2

3. Are you currently serving a surgical residency rotation at a Veterans Administration Medical Center (VAMC)? (CHECK ONE.) n=386 (9)

   1. [ ] Yes 33.7

   2. [ ] No ▶(SKIP TO QUESTION 6.) 66.3

4. Are you currently a chief resident? (CHECK ONE.) n=134 (10)

   1. [ ] Yes 30.7

   2. [ ] No 69.3

5. Approximately how many months have you been at this VAMC on this rotation? (ENTER NUMBER.) (11-12)

   _____ Duration in months ▶(SKIP TO QUESTION 9.)

6. Have you ever served a surgical residency rotation at a VAMC? (CHECK ONE.) n=262 (13)

   1. [ ] Yes ▶(CONTINUE.) 100.0

   2. [ ] No ▶(STOP HERE AND RETURN THIS QUESTIONNAIRE. THERE IS NO NEED TO COMPLETE THE REMAINING QUESTIONS. IT IS IMPORTANT, HOWEVER, TO RETURN THIS QUESTIONNAIRE.) 0.0

7. Consider the most recent surgical residency rotation you served at a VAMC. Approximately how many months did this rotation last? (ENTER NUMBER.) (14-15)

   _____ Duration in months

8. Were you a chief resident during your most recent VAMC surgical residency rotation? (CHECK ONE.) n=264 (16)

   1. [ ] Yes 33.1

   2. [ ] No 66.9

9. Enter below the name of the VAMC where you are currently a resident surgeon. If you are not currently a VAMC surgical resident enter the most recent VAMC where you served a surgical residency.

   _____ VAMC

   ___/___/___ (17-18)

SURGICAL ROTATION SERVED AT VAMC

Answer questions 10 through 16 in relation to your current surgical rotation at a VAMC. If you are not currently serving a surgical residency rotation at a VAMC answer them in relation to the most recent one you have served at a VAMC.

10. Listed below are activities an attending surgeon might engage in during a patient's preoperative phase of treatment. Consider attending physicians in your surgical specialty at the VAMC. Approximately how often, if ever, do they engage in each activity when a resident is involved in a patient's care? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	In 0-19% of the cases (1)	In 20-39% of the cases (2)	In 40-59% of the cases (3)	In 60-79% of the cases (4)	In 80-100% of the cases (5)	
1. Talk to the patient n=385	12.6	13.7	10.4	17.4	46.0	(19)
2. Examine the patient n=386	16.3	15.7	12.9	21.3	33.8	(20)
3. Review the medical records n=381	17.6	10.8	16.4	21.9	35.3	(21)
4. Consult with the resident about the patient's diagnosis and treatment n=388	4.1	2.2	6.4	12.2	75.0	(22)
5. Write or countersign the preoperative note n=384	21.1	6.9	8.6	12.3	51.1	(23)

11. Listed below are activities an attending surgeon might engage in during a patient's postoperative phase of treatment. Consider attending physicians in your surgical specialty at the VAMC. Approximately how often, if ever, do they engage in each activity when a resident is involved in a patient's care? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	In 0-19% of the cases (1)	In 20-39% of the cases (2)	In 40-59% of the cases (3)	In 60-79% of the cases (4)	In 80-100% of the cases (5)	
1. See the patient within 24 hours after surgery n=385	19.1	16.5	16.5	13.0	34.8	(24)
2. Examine the patient within 24 hours after surgery n=385	22.4	21.8	16.4	13.4	26.1	(25)
3. Review the medical records within 24 hours after surgery n=384	32.4	20.1	15.7	14.4	17.5	(26)
4. Consult with the resident within 24 hours after surgery about the patient's condition and treatment plan n=386	4.9	8.2	9.0	21.4	56.5	(27)
5. Write or countersign the post-operative note n=384	34.1	12.3	14.0	14.7	24.9	(28)

12. Listed below are actions that usually occur during surgical procedures. Consider attending physicians in your surgical specialty at the VAMC. Approximately how often, if ever, are they in the operating room during elective (as opposed to emergency) surgery when a resident performs the surgery? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons in operating room when:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. The anesthesia is administered n=384	25.4	21.1	17.6	17.1	18.7	(29)
2. The initial incision is made n=384	8.1	13.8	18.7	19.7	39.7	(30)
3. The diagnosis is confirmed n=378	3.3	4.6	13.0	19.6	59.4	(31)
4. The surgical procedure is decided n=377	2.8	4.5	9.0	19.1	64.6	(32)
5. The surgical procedure is performed n=384	2.6	5.1	12.1	18.5	61.8	(33)
6. The wound is closed n=384	25.7	23.7	16.8	18.9	15.0	(34)

13. Listed below are actions that usually occur during surgical procedures. Consider attending physicians in your surgical specialty at the VAMC. Approximately how often, if ever, are they in the operating room during emergency surgery when a resident performs the surgery? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons in operating room when:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. The anesthesia is administered n=369	25.3	14.9	14.4	19.4	25.9	(35)
2. The initial incision is made n=369	15.2	11.8	13.2	20.2	39.6	(36)
3. The diagnosis is confirmed n=367	9.5	9.7	12.1	11.3	57.4	(37)
4. The surgical procedure is decided n=363	7.7	9.0	11.1	12.4	59.8	(38)
5. The surgical procedure is performed n=364	7.4	9.1	10.9	14.4	58.2	(39)
6. The wound is closed n=368	29.3	22.0	15.0	17.0	16.6	(40)

14. We would like to know the amount of supervision VAMC surgical residents receive. By amount of supervision we mean the frequency of communication between attending and resident surgeons about cases, and the frequency of observation of residents by attendings. Do attending physicians in your surgical specialty at the VAMC communicate with/observe resident surgeons more often than, as often as, or less often than needed during each of the phases described below? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	Much more often than needed 1	Somewhat more often than needed 2	About as often as needed 3	Somewhat less often than needed 4	Much less often than needed 5	
1. Communicate with residents during the preoperative phase n=385	2.6	10.5	78.0	7.1	1.8	(41)
2. Observe residents during the preoperative phase n=384	2.1	6.7	77.5	10.3	3.5	(42)
3. Communicate with residents during the intraoperative phase n=384	3.9	16.2	73.5	5.2	1.1	(43)
4. Observe residents during the intraoperative phase n=380	4.3	19.0	69.8	6.1	0.8	(44)
5. Communicate with residents during the postoperative phase n=384	2.1	4.4	77.6	13.8	2.1	(45)
6. Observe residents during the postoperative phase n=384	1.3	4.7	74.7	16.3	2.9	(46)

15. Has the VAMC provided you with written and/or oral guidance describing VAMC practices and procedures regarding surgical resident supervision? (CHECK ONE BOX FOR EACH ROW.)

	Yes 1	No 2	
1. Received written guidance n=373	54.2	45.8	(47)
2. Received oral guidance n=371	73.1	26.9	(48)

16. Based on your experience, is VAMC surgical resident supervision more than, about, or less than adequate to assure optimal patient care and resident education? (CHECK ONE BOX FOR EACH ROW.)

	More than adequate 1	About adequate 2	Less than adequate 3	
1. Assure optimal patient care n=385	37.6	57.3	5.1	(49)
2. Assure optimal resident education n=385	28.8	55.7	15.5	(50)

SURGICAL RECORDS

Question 17 concerns the accuracy with which VAMC surgical records reflect what occurs during surgery. Once again, answer this question based on your current experience at a VAMC. If you are not currently a surgical resident at a VAMC, answer it in relation to your most recent VAMC surgical rotation.

17. Listed below are operative report and operating room log entries.

Part A: Based on your experience, in approximately what proportion of VAMC surgical cases are each of these entries recorded? (CHECK ONE BOX FOR EACH ROW.)

PART B: When each entry is recorded, in approximately what proportion of cases is it recorded accurately? (CHECK ONE BOX FOR EACH ROW.)

	PART A: RECORDED?						PART B: RECORDED ACCURATELY?				
	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases		In most cases	In some case	In few, if any, cases		
	1	2	3	4	5		1	2	3		
1. Name of attending surgeon in operative report n=379	0.5	0.9	1.1	3.0	94.5	(51)	95.7	0.5	3.8	(55)	n=379
2. Involvement of attending surgeon is noted in operative report n=372	16.6	3.9	7.8	9.1	62.5	(52)	85.2	6.3	8.4	(56)	n=364
3. Name of attending surgeon in operating room log n=361	0.3	0.6	1.7	2.3	95.1	(53)	95.3	0.8	4.0	(57)	n=359
4. Involvement of attending surgeon is noted in operative room log n=342	11.6	2.1	7.3	5.7	73.3	(54)	85.7	5.9	8.4	(58)	n=338

OTHER VAMC SURGICAL ROTATIONS

18. Within the past 3 years have you completed a surgical residency rotation at any VAMC other than the one you noted in question 9? (CHECK ONE.) n=385 (59)

1. [ ] Yes 14.9

2. [ ] No ➡(SKIP TO QUESTION 21.) 85.1

19. Based on your VAMC experience within the past 3 years, would you say the frequency of communication between attending and resident surgeons, and the frequency of observation of residents by attending surgeons varies little, somewhat, or greatly from VAMC to VAMC? (CHECK ONE BOX FOR EACH ROW.)

	Varies little, if any	Varies somewhat	Varies greatly	
	1	2	3	
1. Frequency of communication between attending and resident surgeons n=55	30.1	51.4	18.5	(60)
2. Frequency of observation of residents by attending surgeons n=56	25.1	53.8	21.1	(61)

20. Please describe the variation, if any.

SURGICAL RESIDENCIES IN NON-VA HOSPITALS

21. Have you ever completed a surgical residency rotation at a non-VA hospital? (CHECK ONE.) n=384 (62)

1. [ ] Yes 90.3

2. [ ] No ➡(SKIP TO QUESTION 34.) 9.7

22. Approximately how long was the most recent surgical residency rotation you completed at a non-VA hospital? (ENTER NUMBER.)

_____ (63-64)
Duration in months

23. What type of surgical residency did you serve at this non-VA hospital? (CHECK ONE.) (65-66) n=346

01. [ ] General 48.2

02. [ ] Colon & Rectal 0.0

03. [ ] Neurological 4.3

04. [ ] Ophthalmology 11.2

05. [ ] Orthopedic 11.9

06. [ ] Otolaryngology 8.9

07. [ ] Plastic 3.2

08. [ ] Thoracic 4.2

09. [ ] Urology 7.4

10. [ ] Other (Specify.) 0.3 Vascular 0.5

24. Once again, consider the most recent surgical residency rotation you've completed at a non-VA hospital. In what type of hospital did you serve this residency? (CHECK ONE.) n=339 (67)

1. [ ] University medical center 69.0

2. [ ] Private hospital other than university medical center 20.5

3. [ ] Public hospital other than VAMC (Please specify.)

8.6

4. [ ] Other (Please specify.)

1.9

* *
* ➡PLEASE NOTE: Answer questions 25 through 33 *
* in relation to the most recent surgical residency *
* rotation you've completed at a non-VA hospital. *
* *
* *

25. Listed below are activities an attending surgeon might engage in during a patient's preoperative phase of treatment. Consider attending physicians in your surgical specialty at this non-VA hospital. Approximately how often, if ever, did they engage in each activity when a resident was involved in a patient's care? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	In 0-19% of the cases (1)	In 20-39% of the cases (2)	In 40-59% of the cases (3)	In 60-79% of the cases (4)	In 80-100% of the cases (5)	
1. Talked to the patient n=346	4.1	6.6	8.5	15.5	65.4	(68)
2. Examined the patient n=346	5.7	7.7	9.3	20.2	57.1	(69)
3. Reviewed the medical records n=343	7.2	9.9	11.3	22.1	49.5	(70)
4. Consulted with the resident about the patient's diagnosis and treatment n=346	1.5	3.1	7.8	20.2	67.5	(71)
5. Wrote or countersigned the preoperative note n=344	14.4	8.7	10.2	15.2	51.5	(72)

26. Listed below are activities an attending surgeon might engage in during a patient's postoperative phase of treatment. Consider the attending physicians in your surgical specialty at this non-VA hospital. Approximately how often, if ever, did they engage in each activity when a resident was involved in a patient's care? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	In 0-19% of the cases (1)	In 20-39% of the cases (2)	In 40-59% of the cases (3)	In 60-79% of the cases (4)	In 80-100% of the cases (5)	
1. Saw the patient within 24 hours after surgery n=345	6.0	7.3	5.7	17.9	63.1	(73)
2. Examined the patient within 24 hours after surgery n=345	8.6	7.6	12.2	17.4	54.2	(74)
3. Reviewed the medical records within 24 hours after surgery n=343	12.3	17.1	16.9	16.5	37.2	(75)
4. Consulted with the residents within 24 hours after surgery about the patient's condition and treatment plan n=345	3.6	2.8	6.6	19.1	67.9	(76)
5. Wrote or countersigned the post-operative note n=344	21.5	13.6	10.7	13.8	40.4	(77)

1 (80)
DUP (1-5)

27. Listed below are actions that usually occur during surgical procedures. Indicate how often, if ever, attending physicians in your surgical specialty at this non-VA hospital were in the operating room during elective (as opposed to emergency) surgery when a resident performed the surgery. (CHECK ONE BOX FOR EACH ROW.)

Attending surgeon in operating room when:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. The anesthesia was administered n=346	16.9	15.6	16.8	20.1	30.6	(6)
2. The initial incision was made n=345	6.7	9.1	12.4	19.1	52.7	(7)
3. The diagnosis was confirmed n=343	0.6	3.6	7.8	15.9	72.1	(8)
4. The surgical procedure was decided n=343	0.7	1.8	5.6	13.1	78.9	(9)
5. The surgical procedure was performed n=346	0.6	2.0	9.6	13.4	74.5	(10)
6. The wound was closed n=346	23.8	17.3	17.2	21.7	20.0	(11)

28. Listed below are actions that usually occur during surgical procedures. Indicate how often, if ever, attending physicians in your surgical specialty at this non-VA hospital were in the operating room during emergency surgery when a resident performed the surgery. (CHECK ONE BOX FOR EACH ROW.)

Attending surgeon in operating room when:	In 0-19% of the cases	In 20-39% of the cases	In 40-59% of the cases	In 60-79% of the cases	In 80-100% of the cases	
	1	2	3	4	5	
1. The anesthesia was administered n=344	16.7	13.9	16.9	17.4	35.2	(12)
2. The initial incision was made n=344	10.5	11.7	13.1	14.0	50.7	(13)
3. The diagnosis was confirmed n=343	4.8	7.4	10.2	12.7	65.0	(14)
4. The surgical procedure was decided n=342	2.9	7.8	9.0	10.3	70.1	(15)
5. The surgical procedure was performed n=344	3.9	5.8	10.0	11.7	68.6	(16)
6. The wound was closed n=343	27.1	17.2	16.2	18.5	20.9	(17)

29. We would like to know the amount of supervision non-VA surgical residents receive. By amount of supervision we mean the frequency of communication about cases between attending and resident surgeons, and the frequency of observation of residents by attending surgeons. Did attending physicians in your surgical specialty at this non-VA hospital communicate with/observe resident surgeons more often than, as often as, or less often than needed during each of the phases described below? (CHECK ONE BOX FOR EACH ROW.)

Attending surgeons:	Much more often than needed	Somewhat more often than needed	About as often as needed	Somewhat less often than needed	Much less often than needed	
	1	2	3	4	5	
1. Communicate with residents during the preoperative phase n=345	4.9	19.9	57.9	12.9	4.3	(18)
2. Observe residents during the preoperative phase n=343	4.3	14.7	63.9	13.2	3.9	(19)
3. Communicate with residents during the intraoperative phase n=345	5.7	16.5	71.7	4.6	1.5	(20)
4. Observe residents during the intraoperative phase n=344	7.5	17.3	70.6	3.5	1.2	(21)
5. Communicate with residents during the postoperative phase n=345	4.5	12.6	69.1	12.4	1.4	(22)
6. Observe residents during the postoperative phase n=344	3.5	15.7	64.6	14.0	2.1	(23)

30. Did this non-VA hospital provide you with written and/or oral guidance describing its practices and procedures regarding surgical resident supervision? (CHECK ONE BOX FOR EACH ROW.)

	Yes	No	
	1	2	
1. Received written guidance n=342	37.6	62.0	(24)
2. Received oral guidance n=338	70.4	29.6	(25)

31. Based on your experience, is surgical resident supervision at this non-VA hospital more than, about, or less than adequate to assure optimal patient care and resident education? (CHECK ONE BOX FOR EACH ROW.)

	More than adequate	About adequate	Less than adequate	
	1	2	3	
1. Assure optimal patient care n=346	49.0	47.9	3.1	(26)
2. Assure optimal resident education n=346	35.2	54.2	10.6	(27)

32. Consider the four phases of treatment listed below. Based on your experience, do resident surgeons at non-VA hospitals receive somewhat more, about the same amount, or somewhat less supervision during each phase than resident surgeons at VAMCs? (CHECK ONE BOX IN EACH ROW.)

	Non-VA residents receive somewhat more supervision than VAMC residents	Non-VA residents receive about the same amount of supervision as VAMC residents	Non-VA residents receive somewhat less supervision than VAMC residents	
	1	2	3	
1. During the preoperative phase of treatment n=345	44.0	43.1	12.8	(28)
2. During the postoperative phase of treatment n=345	41.7	44.6	13.7	(29)
3. During scheduled surgery n=346	35.4	56.4	8.3	(30)
4. During emergency surgery n=342	31.2	55.7	13.1	(31)

33. Consider how well surgical resident supervision assures optimal patient care and resident education. Based on your experience, would you say that non-VA hospital surgical resident supervision is somewhat more adequate than, about as adequate as, or somewhat less adequate than the VAMC's in each respect? (CHECK ONE BOX FOR EACH ROW.)

	Non-VA supervision somewhat more adequate than VAMC	Non-VA supervision about as adequate as VAMC	Non-VA supervision somewhat less adequate than VAMC	
	1	2	3	
1. To assure optimal patient care n=344	22.7	73.1	4.1	(32)
2. To assure optimal resident education n=345	25.0	62.6	12.4	(33)

2(80)

34. Please enter any additional comments you might have about surgical resident supervision at VA or other hospitals in the space below or on the back of this page.

Officials Contacted on Criteria for Supervision of Surgical Residents

Table VI.1: People Who Were Interviewed Regarding Adequate Supervision and Who Later Reviewed the Draft Criteria Paper

Name	Position	Organization
John Chase, M.D.	Former Chief Medical Director	Department of Medicine and Surgery, Veterans Administration
D. Kay Clawson, M.D.	Chairman	Residency Review Committee for Orthopedic Surgery
William F. Collins, M.D., Ph.D.	Chairman	Residency Review Committee for Neurological Surgery
John A.D. Cooper, M.D., Ph.D.	President	Association of American Medical Colleges
Ralph G. DePalma, M.D.	Chief of Surgery	George Washington University
Bill M. Domm, M.D.	Chief of Staff	Hampton VA Medical Center
Douglas K. Duncan, M.D.	Associate Director	Hospital Accreditation Program, Joint Commission on Accreditation of Hospitals
F. Henry Ellis, Jr., M.D.	Chairman	Residency Review Committee for Thoracic Surgery
Laurence V. Foye, Jr., M.D.	Director	San Francisco VA Medical Center
John B. Henry, M.D.	Dean	Georgetown University
James W. Humphreys, Jr., M.D.	Executive Director	American Board of Surgery
Joseph E. Johnson III, M.D.	Chairman	Residency Review Committee for Internal Medicine
Ronald P. Kaufman, M.D.	Vice President for Medical Affairs	George Washington University
Frederick M. Lane, M.D.	Former Professional Staff Member	Committee on Health Care Research on the Veterans Administration, National Academy of Sciences
John A. Libertino, M.D.	Vice-Chairman	Residency Review Committee for Urology
Hiram C. Polk, M.D.	Chairman	Residency Review Committee for Surgery
Owen M. Rennert, M.D.	Chairman	Residency Review Committee for Pediatrics
Richard D. Richards, M.D.	Member	Residency Review Committee for Ophthalmology
Robert B. Wallace, M.D.	Chairman of Surgery	Georgetown University

Table VI.2: People Who Reviewed Draft Criteria Paper

Name	Position	Organization
Terry D. Allen, M.D.	Chairman	Residency Review Committee for Urology
Henry H. Banks, M.D.	Secretary	American Board of Orthopedic Surgery
James R. Callison, M.D.	Chairman	Residency Review Committee for Plastic Surgery
John C. Gienapp, M.D.	Secretary	Accreditation Council for Graduate Medical Education
William P. Graham III, M.D.	Secretary/ Treasurer	American Board of Plastic Surgery
C. Rollins Hanlon, M.D.	Director	American College of Surgeons
Timothy M. Hosea, M.D.	House Staff Representative	Accreditation Council for Graduate Medical Education
Carl W. Hughes, M.D.	Assistant Chief Medical Director for Professional Services	Veterans Administration
David G. Kline, M.D.	Chairman	American Board of Neurological Surgery
J. Tate Mason, M.D.	Secretary	American Board of Urology
Frank G. Moody, M.D.	President	Society of Surgical Chairmen, Council of Academic Societies, Association of American Medical Colleges
Norman D. Nigro, M.D.	Secretary	American Board of Colon and Rectal Surgery
George Reed, M.D.	Chairman	American Board of Otolaryngology
Melvin L. Rubin, M.D.	Chairman	American Board of Ophthalmology
Herbert Sloan, M.D.	Secretary	American Board of Thoracic Surgery
Philip M. Sprinkle, M.D.	Chairman	Residency Review Committee for Otolaryngology
Jonathan D. Trobe, M.D.	Chairman	Residency Review Committee for Ophthalmology
David M. Worthen, M.D.	Assistant Chief Medical Director for Academic Affairs	Veterans Administration

GAO Criteria for Supervision of Surgical Residents

This appendix consists of a paper that sets out our criteria for adequate supervision of surgical residents during the preoperative, intraoperative, and postoperative phases of a patient's treatment. We developed this paper from comments of 37 medical professionals representing a variety of medical organizations. Initially, we talked with 19 medical experts concerning supervision of residents and, from their comments, drafted a paper setting out minimum standards for such supervision. This paper was then sent out for review to the original 19 and an additional 18 medical professionals. Based on the comments received, we made appropriate changes to arrive at this final version.

Adequate supervision involves two sometimes conflicting goals—training the residents and ensuring the quality of patient care. For example, residents may need to gain confidence and experience in making their own decisions during an operation. However, the patient's interests may not be best served by having a resident perform surgery without a supervising physician[1] present.

The criteria in this paper attempt to balance these goals and set minimum levels for adequate supervision of surgical residents. Supervising physicians must use their judgment to determine the supervision needed for each case, while maintaining at least these minimum levels.

Definition of Terms

For the purpose of this paper, "surgery" is confined to inpatient operations. The preoperative phase starts when the patient is hospitalized and ends when the patient goes to the operating room. Although the postoperative phase may last for several days after the surgery or until discharge and the supervising physician should see the patient periodically during that time, this paper addresses only the supervision during the first 24 hours after the operation.

The term "supervising physicians" refers to attending and consulting surgeons. "Surgical residents" include residents in any of the surgical specialties: general surgery, colon and rectal surgery, neurological surgery, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, thoracic surgery, and urology. "Chief residents" are residents in their last year of a residency program.

[1]The terms "supervising physician" used in this appendix and "supervising surgeon" used in the main report are interchangeable.

Even though the criteria refer to the complexity and risk of operations, these terms are not defined because they may differ depending on the type of operation and the patient's condition. For instance, the complexity and risk of a simple hernia operation will differ for a 20-year-old patient in good health and a 65-year-old patient with a heart condition and diabetes. Supervising physicians must determine the complexity and risk of each operation.

Overall Criteria for Supervision

The following criteria apply to the supervision of surgical residents during all phases of the patient's treatment.

1. Residents should be given increased responsibility as they progress through the residency program.

2. The responsibility or independence given to residents should depend on their knowledge, manual skill, and experience, as well as the complexity and risk of the operations.

3. To ensure the quality of patient care and proper supervision of residents, one supervising physician should be responsible for each patient during hospitalization. This physician should monitor the patient's condition during the preoperative, intraoperative, and postoperative phases.

4. The supervising physician should always be one qualified in the applicable surgical specialty.

Preoperative Supervision

During the preoperative phase, the patient is prepared for the operation, and the supervising physician confirms the resident's diagnosis and treatment plan. The minimum standards for adequate preoperative supervision follow.

5. Supervising physicians should discuss each case with residents before surgery. This applies regardless of the resident's level.

6. Adequate preoperative supervision requires the supervising physician to see the patient after admission and before surgery.

7. The supervising physicians should write or countersign progress notes to indicate that they agree with the diagnosis and the treatment

plan. This does not affect the care given, but it documents the supervising physician's involvement in the case.

Intraoperative Supervision

Operations can be divided into four phases: a. Making the initial incision. b. Confirming the diagnosis. c. Performing the surgical procedure. d. Closing the wound.

The need for supervision varies according to the phase of the operation. For instance, making the initial incision and closing the wound are generally not as critical as confirming the diagnosis and performing the surgical procedure. Confirming the diagnosis is important to identify any unexpected complications and verify the need for the planned procedure. Obviously, the actual procedure and the technique used determine the surgery's outcome. Therefore, unless noted otherwise, the following criteria address the supervision needed to confirm the diagnosis and perform the procedure.

Scheduled Surgery

8. When a first-year resident operates, a supervising physician should be in the operating room.

9. When residents other than a first-year or a chief resident operate, the supervising physician should be in the operating room or operating room suite.

10. When a chief resident is operating, the supervising physician should be within 15 minutes of the operating room. (The 15-minute response time begins when the supervising physician is contacted and ends with the supervising physician being appropriately dressed and in the operating room. In most cases, this would require the supervising physician to be within the hospital or an adjacent building.)

11. A chief resident may supervise a more junior resident in the operating room except on complex and high-risk operations. The supervising physician should be within 15 minutes of the operating room.

12. The supervising physician should be in the operating room when a resident of any level performs a procedure for the first time.

13. When any resident is performing the less critical phases—that is, making the initial incision and closing the wound—the supervising physician should be within 15 minutes of the operating room.

14. If the case or the procedure is extremely complex or high risk, the supervising physician should be in the operating room during all four phases of surgery, no matter what the level of the resident.

Emergency Surgery

The following criteria apply for emergency surgery.

15. The resident should contact the supervising physician and discuss the case before surgery. In life-threatening situations, there might not be enough time to call the supervising physician immediately, but the resident should call the supervising physician immediately following completion of life-saving procedures.

16. If a chief resident is operating, the supervising physician may decide not go to the hospital, but he or she should be available by telephone. If the operation is complex or high risk, the supervising physician should go to the operating room.

17. The supervising physician should be present in the operating room for operations performed by residents other than the chief resident.

18. In urgent situations and with the supervising physician's approval, the resident may start the surgery before the supervising physician's arrival.

Postoperative Supervision

The following criteria address adequate postoperative supervision.

19. Supervising physicians should see the patient and discuss the postoperative treatment with residents within 24 hours after surgery.

20. The supervising physicians need not write or countersign progress notes indicating their agreement with the postoperative treatment plan.

Advance Comments From the Veterans Administration

Office of the
Administrator
of Veterans Affairs

Washington DC 20420

Veterans
Administration

SEP 23 1985

Mr. Richard L. Fogel
Director, Human Resources Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Fogel:

Your August 9, 1985 draft report "Supervision of Surgical Residents at VA Hospitals Can Be Improved" has been reviewed. I agree that the Veterans Administration (VA) needs to change some of the VA criteria for the supervision of surgical residents, and concur with most of the General Accounting Office (GAO) recommendations. A directive, covering all the recommendations in which the VA concurs, will be issued immediately, with the revision of VA Manual M-2, Part I, Chapter 26, concerning supervision of residents to follow.

Because the GAO evaluators believed VA's criteria to assess supervision were too broad to use, they developed criteria based on input from 37 officials of medical organizations. I do not believe that VA medical centers using VA criteria should be faulted for noncompliance with GAO-generated criteria, especially since the report does not demonstrate any link between the issue of supervision of residents and the quality of the surgical training program or quality of care.

My comments on the recommendations are enclosed.

Sincerely,

HARRY N. WALTERS
Administrator

Enclosure

VA'S RESPONSE TO THE DRAFT REPORT "SUPERVISION OF SURGICAL RESIDENTS AT VA HOSPITALS CAN BE IMPROVED"

GAO recommends that I direct the Chief Medical Director to revise VA criteria on supervision of surgical residents so that the criteria is no less specific than the GAO criteria and should

--define the "appropriate" actions for preoperative and postoperative supervision,

I concur that "appropriate" actions can and should be established, constituting criteria of acceptable preoperative and postoperative resident supervision. For example, a preoperative note signed or countersigned by the supervisor, indicating that he had seen the patient and discussed the case with the resident, could serve as the criterion for preoperative supervision. The same procedure can apply to postoperative management.

--relate the five levels of intraoperative supervision to the level of the resident and complexity of the case,

I do not concur in this recommendation because the VA system for determining the degree of supervision required for any given resident is flexible enough to allow the use of judgment after considering the resident's level of training, past experience, and the evaluation of his/her capabilities. Only immediate supervisors can adequately assess the degree of supervision required for any particular resident. Relating the year level of a resident's training to the complexity of the case could not be achieved practically since there are too many variables in evaluating the case versus the evaluation of the resident's capabilities. Development of skills and judgment of surgeons in training cannot be equated to their chronological year of training because people develop skills at different speeds. Making rigid requirements about the degree of supervision would be counter to the philosophy of surgical training that calls for decreasing the amount of supervision as skills and judgment progress. The American Boards in the various surgical fields require graded responsibility, and increasing the amount of responsibility and decreasing the amount of supervision are considered important components of quality education.

I agree that for scheduled cases the supervising surgeon should routinely be in the medical center. On occasions where circumstances prevent this, the supervising surgeon should be, at the most, within 15 minutes of the operating room. For emergency cases, however, the supervisor should be contacted before surgery begins, and the supervisor's presence should be left to his/her judgment. For example, if the supervising surgeon is available by phone, he may decide not to return to the hospital if he knows that a senior resident is assisting a junior resident and that they are quite capable of performing the surgery. The supervising surgeon should return to the operating room when complicated surgery such as a ruptured aortic aneurysm or a case of multiple trauma is contemplated.

--address the specialty of the supervising surgeon, and

I concur, in part, and believe that the supervising surgeon should be properly trained in the specialty appropriate for the care of the patient involved. Surgeons of various designated specialties may be trained, experienced, and credentialed to perform the same procedures. For example, general surgeons and otolaryngologists are both trained to perform radical neck dissections, so that physicians in either discipline could appropriately supervise such cases done by residents in either specialty. Conversely, one general surgeon may have been trained and had experience in performing peripheral vascular surgery and should supervise such cases, whereas another general surgeon (both have board certification in general surgery) has had no such experience and should not be the supervisor in such a case. These distinctions will be made by appropriate credentialing, not necessarily by which specialty board the surgeon has been certified.

--clarify the provision exempting certain residents from the supervision criteria.

I concur.

GAO also recommends that I direct the Chief Medical Director to require that VA hospital chiefs of surgery enforce criteria for surgical resident supervision. This enforcement should include

--not allowing surgeons whose schedules do not permit supervising all three phases of surgery to supervise residents, and

I do not concur because this recommendation represents an ideal situation which is unattainable. Residency training programs are located only in VA medical centers affiliated with a medical school. Because of this, many staff surgeons are part-time employees. In some cases, the supervising surgeons are consultants, not VA employees. It would not be feasible to integrate the duties of physicians who work both in the VA and in affiliated facilities to require this type of full-time responsibility. In private practice, for example, most practitioners are members of groups, each member is known to the patients and the various phases of care might be done by any member of the group. The same physician may not, at all times, accomplish preoperative, intraoperative, and postoperative care.

--not allowing surgery to proceed unless the preoperative criteria are met.

I concur.

GAO recommends that I, through the Chief Medical Director,

--designate either the Office of Quality Assurance or the Surgical Services office within the Department of Medicine and Surgery as having the primary responsibility for monitoring supervision of residents and indicate that all pertinent information on supervision of surgical residents should be given to that office,

I concur. The Surgical Service in the Department of Medicine and Surgery will be designated as having the primary responsibility for monitoring and keeping information regarding the supervision of surgical residents. The Office of Quality Assurance will participate as appropriate.

--specify and standardize the system(s) the VA hospitals should use to monitor and report on the supervision of surgical residents, and

I concur. The Surgical Service, in cooperation with appropriate VA Central Office officials, will develop a standardized system of monitoring and reporting on the supervision of surgical residents. This will be incorporated into a directive that will be issued immediately, pending revision of the part of the VA Manual concerning supervision of residents.

--direct the office receiving the results of VA hospitals' annual audits to notify the regional directors of missing reports so that they can enforce the requirement.

I concur. These instructions will also be incorporated into the directive and the revised VA Manual chapter.

Advance Comments From the UCLA School of Medicine

UNIVERSITY OF CALIFORNIA, LOS ANGELES UCLA

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OFFICE OF THE DEAN
UCLA SCHOOL OF MEDICINE
CENTER FOR THE HEALTH SCIENCES
LOS ANGELES, CALIFORNIA 90024

September 4, 1985

Mr. Richard L. Fogel
Director
Human Resources Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Fogel:

Thank you for your letter of August 9, 1985, asking for my written comments on those sections of your draft-report entitled "Supervision of Surgical Residents at VA Hospitals Can Be Improved" concerning the Sepulveda and West Los Angeles VA hospitals, Harbor General Hospital (the Harbor-UCLA Medical Center) and "the medical school hospital" (the UCLA Medical Center.)

The report cites the presence or absence of adequate preoperative, intraoperative and postoperative notes and documented consultation as indices of the supervision of residents in selected cases. By these criteria intraoperative supervision was generally concordant and adequate in the four U.C.L.A. affiliated hospitals, but preoperative and postoperative supervisions were not concordant and not adequate at the West Los Angeles VA Hospital by standards formulated by the auditors in this study.

The presence or absence of documented consultation would be expected to vary depending upon such factors as the kinds of operations and the length of hospitalization. These variables may account for some of the discordant figures. For example, the West Los Angeles V.A. Hospital has one of the shortest durations of hospitalization for surgical patients in the Veterans Administration. At Wadsworth attending Clinical Faculty often discuss patients with the residents pre and postoperatively and may sometimes not have recorded their expert supervisory discussions.

Morbidity and mortality review of surgical patients at Wadsworth and Sepulveda Hospitals are and have been regularly and scrupulously conducted by expert U.C.L.A. faculty. It is clear from these reviews that surgical patients at those hospitals, as well as the others affiliated with UCLA, have received splendid care. These results are the best test of the

 September 4, 1985

adequacy of the supervision and selection of residents. However, the records of supervision audited are not unimportant, and we have launched a campaign to improve performance wherever it is indicated.

Under separate cover, I shall return to you the draft, as you requested.

With best wishes,

Sincerely yours,

SHERMAN M. MELLINKOFF, M.D.

SMM/eg

Advance Comments From the University of Tennessee College of Medicine

UTCHS THE UNIVERSITY OF TENNESSEE
Center for the Health Sciences

MEMPHIS • KNOXVILLE • CHATTANOOGA • NASHVILLE • JACKSON

College of Medicine
Office of the Dean

September 12, 1985

Richard L. Fogel
Director
Human Resources Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Fogel:

I am writing in response to your request concerning the GAO study on supervision of surgical residents at VA hospitals. Enclosed are our written comments for inclusion in your final report.

Should you have any questions concerning our response, please feel free to contact this office.

Sincerely yours,

Robert L. Summitt, M.D.
Dean, College of Medicine

RLS/pd

Attachment

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UTCHS THE UNIVERSITY OF TENNESSEE
Center for the Health Sciences

College of Medicine
Department of Surgery

MEMPHIS • KNOXVILLE • CHATTANOOGA • NASHVILLE • ARGENTA

Comments on draft report to Congress on
Supervision of Surgical Residents at VA Hospitals Can Be Improved

The overall impression is that the GAO criteria reflect inadequate understanding of the educational process of surgical residents and would greatly interfere with residency training. I believe that this matter should be submitted to the Residency Review Committee for Surgery and to the American Board of Surgery. I have seen similar systems instituted in private hospitals, generally with inferior residency programs.

Now on p. 21.

Page 18 - The decision as to the appropriate degree of supervision depends upon the judgement of the surgeon who is responsible for the case. It varies with the individual staffman, with the individual resident, with the specific patient and his condition. No clear criteria and rules can be written to reflect this judgemental call of a professional.

Now on p. 23.

Page 20 - The VA requirement that certain residents are exempt from supervision should remain. The GAO criteria for intraoperative supervision of first year surgeon is at best inappropriate. First year residents can be supervised by more senior residents for such conditions as these as I & D of perirectal abcesses, amputation of fingers and toes and selected hernias and appendectomies. This is good training for both the junior and senior resident.

Now on p. 23.

Page 21 - The top half of the page, the VA criteria, is considerably better than the GAO. The GAO requirement for a supervising surgeon in the operating room when resident is operating is unnecessary for good patient care and severely debilitating to residency training. The emergency situation in the GAO criteria is the same as above. Much emergency surgery is perfectly appropriate for a PGY2,3, or 4 year resident to perform without supervision or for a junior resident to carry out with more senior resident supervision.

Now on p. 23.

Page 21 - The supervising surgeon does not need to see every patient, in the first 24 hours after surgery. This is arbitrary, unrealistic, and unnecessary.

Now on p. 24.

Page 24 - The intraoperative supervision discusses points previously made. Parenthetically, this audit report seems to reflect an assumption that the staffman's presence has an effect on quality of patient care. This is not documented anywhere and, in fact, most experienced surgeons agree that patients in a training setting with graded residents receive better medical care than those without residency training programs. These requirements should not be instituted until there is objective evidence that the lack of staff has an adverse effect on patient care.

Now on p. 25 and 26.

Page 27 - The GAO criteria specifies the supervision appropriate for the level of the resident. This is inappropriate as previously mentioned.

Now on p. 69.

Page 86 - The data on non-VA hospitals is apparently biased in favor of the community hospital. The hospitals used in this study should be identified, as the numbers do not seem to fit what would happen in a major teaching institution such as The MED, Grady, Parkland and so forth. The

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quoted 1% of hospital patients per year is totally misleading. For example, the Baptist Hospital with 1500 patients, only 22 of them are resident service patients. The majority of the patients do not have residents involved in the service and, therefore, basing the percentage on hospitals total patients is meaningless and greatly misleading. Same comments would hold for postoperative care.

Now on p. 71.

Page 89 - The issue of governmental reimbursement for surgeons is irrelevant to the quality of care or the training of residents.

Advance Comments From the Yale University School of Medicine

Note: GAO comments supplementing those in the report appear at the end of this appendix.

Yale University

Office of the Dean
School of Medicine
333 Cedar Street
P.O. Box 3333
New Haven, Connecticut 06510-8055

Campus address:
I-208 Sterling Hall of Medicine

August 29, 1985

Mr. Richard L. Fogel, Director
Human Resources Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Fogel:

Now on p. 78.

See comment 1.

The draft report of the GAO study on supervision of surgical residents at VA hospitals has come to my attention in Dean Rosenberg's absence. I write at this time to bring to your attention a factual error in Appendix II on page 95. The distance from the West Haven VA Hospital to Yale University is not ten miles. The correct distance from the VA Hospital to the School of Medicine is two miles.

Additional comments may be forthcoming from this institution after we have had further time to study the proposed report which was received on August 23. Thank you for your consideration in sending us a copy of the draft.

Sincerely,

Arthur Ebbert, Jr., M. D.
Deputy Dean

AE:gm

The following are GAO's comments on the Yale University School of Medicine's August 29, 1985, letter.

GAO Comments

1. In examining a map of the New Haven-West Haven vicinity, we found that the shortest driving distance between West Haven VA hospital and Yale University School of Medicine is 4 miles. We changed appendix II to reflect this mileage.

Advance Comments From Baptist Memorial Hospital, Memphis, Tennessee

BAPTIST MEMORIAL HOSPITAL
MEDICAL CENTER
899 MADISON AVENUE
MEMPHIS, TENNESSEE 38146

KENNY E. BEASLEY
ADMINISTRATIVE ASSISTANT

JOSEPH H. POWELL, PRESIDENT

September 4, 1985

Mr. Richard L. Fogel
Director
United States General Accounting Office
Human Resources Division
Washington, D.C. 20548

Dear Mr. Fogel:

I am writing in response to your August 9, 1985, letter to our president, Mr. Joseph Powell, concerning your study of the supervision of surgical residents in VA hospitals.

Now on p. 70.

In reviewing the chapter (Chapter 5) pertinent to Baptist Memorial Hospital (BMH) I have only one comment for your consideration. Would you kindly delete the word "large" on page 87, third paragraph, line two? I realize that this is a very minuscule point to make. However, I make it simply because we are the largest private hospital in the U.S. and the incident in which you describe could, therefore, be associated with BMH.

Thank you for the opportunity of reading the aforementioned draft. It was well written and contained many points of interest. Please do not hesitate to contact me if I can be of further assistance to you.

Sincerely,

Kenny E. Beasley

KEB:vkl

BAPTIST MEMORIAL HEALTH CARE SYSTEM, INC.
BAPTIST MEMORIAL HOSPITAL
- MEDICAL CENTER
- EAST
- REGIONAL REHABILITATION CENTER

Advance Comments From Grady Memorial Hospital, Atlanta, Georgia

Grady Memorial Hospital

J.W. Pinkston, Jr.
Executive Director

Asa G. Yancey, M.D.
Medical Director

Darlene B. Jenkins
Associate Director

Barbara E. Bilek
Associate Director

Betty C. Blake, R.N.
Associate Director/ Director of Nursing

Carl D. Butler
Associate Director/ Fiscal Affairs

Robert L. Parrish, Jr.
Associate Director

Hughes Spalding Medical Center

Charles H. Wilson, Jr.
Administrator

Thomas L. Collier
Assistant Administrator

Charles E. Delane
Assistant Administrator

80 Butler Street, SE., Atlanta, Georgia 30335

September 16, 1985

Mr. Richard L. Fogel
Director
Human Resources Division
United States General Accounting Office
Washington, D. C. 20548

Dear Mr. Fogel:

Thank you for your letter dated August 9, 1985 wherein you extended the privilege to comment on the draft of a proposed report relative to the supervision of surgical residents at Veterans Administration Hospitals. I am delighted that the Veterans Administration likely will increase the supervision of surgical residents. In response to your extending the privilege that written comments may be made, please note the below comments and suggestions:

1. Agree that the supervising surgeons certainly should examine all patients and write or countersign the diagnostic problems and plan for treatment.

2. The line item indicating that the supervising surgeons should be in the operating room when a 1st year resident operates is agreed to and is very good. However, 2nd year and 3rd year residents need close supervision and this should be provided by the supervising surgeons and chief residents as well. 4th year residents should be supervised by 5th year residents (within the building) and the patient's diagnosis and plan of treatment and surgical procedure should be discussed and documented with the supervising surgeon before the case starts. I agree that the supervising surgeon should be within 15 minutes of the operating room and moreover in contact with the operating room as the procedure is carried out to inquire as to the progress being made and the condition of the patient.

3. There is no doubt but that adequate and close supervision makes for increased safety for patients, does not inhibit surgical learning and experience on the part of residents, but rather aids both of these factors of learning and experience in the life of a resident. A good check point is as the report indicated -- no case will begin in the surgical suite until there is documented evidence that the supervising surgeon has participated in the planning of care and the diagnosis of the surgical disease.

It is believed that the Veterans Administration has a responsibility to tighten-ship in regard to the supervision of surgical residents for such improved surgical supervision would spread to other hospitals in a teaching complex and would be helpful in regard to attitude and effectiveness of surgical learning and education. Hopefully the Veterans Administration will take a vigorous lead in this direction and very likely the excellent results and approaches to surgical education will favorably influence surgical supervision in city and county hospitals. In most private hospitals, the private surgeon supervises the care and operation rather closely,- though this is not always the case. However, Veterans Administration Hospitals and city and county hospitals should upgrade their supervision such that it will be of the same high quality as the nation's finest private hospitals.

Expenses and costs are of prime importance in many city and county hospitals as efforts are made to improve the supervision of surgical procedures. If the many millions (about 23 million) of persons who have no third party hospitalization insurance were covered by Medicaid, or some such third party payment source to hospitals, then the city and county hospitals would be better able to afford sufficient numbers of supervisory medical staff to adequately supervise surgical procedures and the care of medical patients including children and pregnant women which would improve immensely the health care system in our nation. Many well motivated, hard working but low income individuals such as those who serve as maids in homes, operate small beauty shops or barbershops, paint houses, tend lawns, or work at minimum wage jobs,- these individuals should be required to pay some very small and reasonable amount into a program such as Medicaid in order that city and county hospitals may realize enough income as these patients are treated, to be able to afford better diagnostic and therapeutic equipment and hire supervising surgeons for improved supervision.

Again, thank you for the privilege of comment.

Sincerely,

Asa G. Yancey, M. D.
Medical Director, Grady Memorial Hospital
Associate Dean, Emory University School of Medicine

AGY:mc

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