

Title: ANESTHESIOLOGY RESIDENT SELECTION: VALUE OF DEAN'S LETTERS?

Authors: Robert W. Vaughan, M.D., Helen Hicks Baker, Ph.D., and Lisa I. Leiden, Ph.D.

Affiliation: Department of Anesthesiology and Office of Medical Education,
University of Arizona College of Medicine, Tucson, Arizona 85724

Introduction. Several studies have shown that dean's letters summarizing students' medical school performance are important to residency program directors when selecting house officers (1,2). However, data do not exist to clarify which aspects of these deans' letters are most important in the selection process for residents in anesthesiology. This study sought to answer the following questions: What characteristics should be described in the dean's letters? What attributes, when present, most influence selection into the program? Does the quality of the dean's letter itself influence an applicant's chances for entry into a residency program?

Method. As part of the departmental application process for an anesthesiology residency, students submitted deans' letters of recommendation regarding personal attributes and medical school accomplishments. Contents of these letters were analyzed by an experienced anesthesiologist-educator using a scale similar to a visual analog scale but containing descriptions of behaviors representative of scale positions (reduction is Figure 1). Scales were used for evaluation of verbal skills, interpersonal skills, motivation/diligence, and clinical judgment.

In addition, the quality of the dean's letter itself was rated on a visual-analog-type scale, with the poles of the scale identified as "useless" to "fantastic." Scales were scored by measuring the length of the distance from the lowest (unfavorable) end of the scale, with results recorded in millimeters. To establish reliability, these data were also coded by a trained, blinded non-physician familiar with the program and selection process. The anesthesiologist-educator's assessments of data from deans' letters were then related to subsequent National Resident Matching Program (NRMP) ranking of the applicants, with rankings of 1-20 being categorized as "high ranked," 20-37 as "low ranked," and the remaining 14 candidates being categorized as "unranked." Appropriate statistical tests were then conducted to determine which attributes were significantly related to ranking by the faculty in the program.

Results. Statistically significant differences were found among these three groups on each of the four analog-type scales of personal characteristics described by deans' letters ($p = .0001$). On all four variables, high ranked applicants received the highest scores and unranked

applicants received the lowest scores. For each characteristic, group means differed by at least 32 mm. and at least one-half of a standard deviation. Significant differences were also found between these three groups on quality of deans' letters ($p = .006$). High ranked applicants had a mean on this variable of 177, low ranked applicants had a mean of 110, and unranked applicants had a mean of 101.

Discussion. Evaluations in deans' letters of verbal skills, interpersonal skills, motivation/diligence and clinical judgment are all significantly and substantially related to applicant's NRMP ranking. Medical students interested in anesthesiology programs should insist that their letters of recommendation comment on these characteristics. Furthermore, applicants with high quality deans' letters are more likely to be highly ranked, giving them an advantage in the selection process.

Figure 1. Form used in Evaluation of Student From Dean's Letter (reduced)

I. INTERPERSONAL SKILLS

"Has interpersonal problems"	"Some difficulty adjusting"	"Satisfactory"	"Above average"	"Outstanding"
"Seemed shy"	"Required encouragement"	"Got along reasonably well"	"Worked very well with us"	"Remarkable"
"Seemed unable to adjust"	"Overcame shyness with difficulty"	"Contributed to team morale"	"A pleasure"	"Impressive"
				"Helped us solve some tough staff problem"

II. VERBAL SKILLS

"Is still easily flustered during rounds"	"Some difficulty with oral presentation"	"Presentations were generally accurate and complete"	"Presentations were logical, orderly, and thorough"	"Superior presentations"
"A lot of trouble communicating"	"Probably knows more than she conveys"	"Here quality I accept for this level of training"	"Gave a really good presentation on"	"Ability clearly exceeded level of training"
		"Satisfactory"	"Articulate"	

III. MOTIVATION/DILIGENCE

"Unreliable"	"Tended to be late"	"Entirely acceptable work habits"	"Solid and dependable"	"Was always there, volunteering for more"
"Couldn't count on him or her"	"Did less than her share of the work"		"Did more than his share of the work"	"Level of conscientiousness that pleased us from day one"
"Did as little as possible"			"Strong sense of responsibility"	"Worked like a student"

IV. CLINICAL JUDGMENT: problem solving ability, critical thinking

"His questions during rounds showed that missed the point"	"Application of pathological principles fair"	"Satisfactory clinical judgement"	"Good grasp of the important questions"	"Ability to synthesize data and report"
"Made unexpected errors in judgement"	"Ability to reach a diagnosis improved, but this one needs more work"	"His conclusions were usually sound"	"Was able to solve problems better than her peers"	"His differential diagnoses are a pleasure to read"
		"Was considered average in problem solving"		

V. QUALITY OF DEAN'S LETTER

Useless Fantastic

References.

- Tardiff, K: The effect of pass-fail on the selection and performance of residents. *J. Med. Educ.*, 55:656-661, 1980.
- Wagoner, NE, Gray, GT: Report on a survey of program directors regarding selection factors in graduate medical education. *J. Med. Educ.*, 54:445-452, 1979.