EXPERIENCE WITH A REPORTING SCHEME FOR RANKING RESIDENCY APPLICANTS

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Introduction. Anesthesia residency programs are having to deal with increasing numbers of well-qualified applicants. In our institution several factors contribute to the complexity of the evaluation of these applicants:

1) Our program begins in the first postgraduate year (PGY-1) and candidates participate in the National Residency Matching Program (NRMP) to which we must provide a list ranking candidates in the order of our preference.

2) Applicants to PGY-1 programs apply to several institutions which greatly increases the number of individuals to be evaluated.

3) All members of our faculty participate in interviews of the candidates between July and December. Each candidate is seen by four to seven interviewers, one of whom is usually the Chairman.

4) Decisions concerning the ranking of candidates for the NRMP are made in late December by a Candidate Evaluation Committee composed of five faculty members.

Over several years we have developed a candidate interview reporting system to facilitate the Candidate Evaluation Committee's work. This report describes our reporting system and the results of statistical analyses of the contribution of several items to our final NRMP ranking.

Methods. Each interviewer is asked to report his estimate ("interview score", v.i.) of each candidate's quartile rank on six items weighted empirically:

1) Appearance 4) Research Experience
2) Ability to communicate 5) Clinical Ability
3) Medical School 6) Letters of Reference

In addition, each interviewer is asked to provide an estimated ordinal ranking (from 1st to 100th) for each candidate that he interviewed. Items that are not evaluated are ignored so the applicant is not "penalized" for items an interviewer does not evaluate. Each interviewer is encouraged to provide narrative comments. Each applicant's medical school record is reviewed to determine a quartile ranking of three items:

1) NBME Part I
2) NBME Part II
3) Class rank

From the quartile ranking of these items, rank order lists can be conveniently prepared based on:

1) The average of all interview scores for each candidate
2) The average of the average interview score and record score for each candidate
3) The average of all interviewers' estimated ordinal ranking for each candidate

These lists are used only as a starting point for the Candidate Evaluation Committee's preparation of the departmental rank order list for the NRMP.

Using the Statistical Package for the Social Sciences (SPSS), simple linear regression analyses were performed between the final ranking of each candidate by the Evaluation Committee as submitted to the NRMP and the computed interview score, record score, estimated ordinal rank, and each of the items making up the interview and record scores. Multiple regression analysis was carried out with the final rank as the dependent variable and the individual items in the interview and record reports as independent variables. Multiple regression analysis allows one to estimate the contribution of the independent variables, acting together, to the variance of the dependent variable.

Results. The simple regression analyses indicated that the following items had correlation coefficients > .4 (and slopes and intercepts estimated with 95%, or greater, confidence) with the final ranking for the NRMP:

1) Average interview score
2) Average estimate of ordinal rank
3) Medical school
4) Ability to communicate.

The multiple regression analysis indicated that 70% of the variance of the final rank is explained by:

1) Medical School
2) Ability to communicate
3) Clinical ability
4) Research experience
5) Appearance

Discussion. It is apparent that class rank, NBME (part II) scores, and letters of reference (as interpreted by interviewers) do not contribute significantly to a candidate's final rank to the NRMP. The contribution of the NBME I score to the final rank is small. It is our opinion that further modification of this reporting system should redefine the clinical ability item. While the multiple regression analysis suggests weightings for the various items which would allow strict mathematical ranking of our candidates, it must be acknowledged that this would not allow for proper evaluation of the individuality we are seeking and finding in increasing numbers of our applicants.