

Educational Deficiencies in Musculoskeletal Medicine
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FROM ABSTRACT

Background:

We previously reported the results of a study in which a basic competency examination in musculoskeletal medicine was administered to a group of recent medical school graduates.

This examination was validated by 124 orthopedic program directors, and a passing grade of 73.1% was established.

According to that criterion, 82% of the examinees failed to demonstrate basic competency in musculoskeletal medicine.

It was suggested that perhaps a different passing grade would have been set by program directors of internal medicine departments.

To test that hypothesis, and to determine whether the importance of the individual questions would be rated similarly, the validation process was repeated with program directors of internal medicine residency departments as subjects.

Conclusions:

According to the standard suggested by the program directors of internal medicine residency departments, a large majority of the examinees once again failed to demonstrate basic competency in musculoskeletal medicine on the examination.

It is therefore reasonable to conclude that medical school preparation in musculoskeletal medicine is inadequate.

THESE AUTHORS ALSO NOTE:

“Musculoskeletal care is provided by a variety of practitioners, including internists, family practitioners, rheumatologists, emergency physicians, pediatricians, and orthopedic surgeons.”

“Mastery of the basics of musculoskeletal medicine is therefore essential for many, if not all, medical students.”

“Ideally, a solid knowledge base would be acquired in medical school and refined during postgraduate training.”

The authors previously evaluated the quality of musculoskeletal knowledge among a cohort of 85 recent medical school graduates in residency, and found that 82% “failed to demonstrate basic competency in musculoskeletal medicine.”

[Freedman KB, Bernstein J. The adequacy of medical school education in musculoskeletal medicine. J Bone Joint Surg Am, 1998;80: 1421-7.]

“On the basis of these data, we suggested that medical school training in musculoskeletal medicine is inadequate.”

DISCUSSION

“According to the standard suggested by the program directors of internal medicine residency departments, a large majority of the examinees once again failed to demonstrate basic competency in musculoskeletal medicine.”

“It is reasonable, therefore, to conclude that medical school preparation in musculoskeletal medicine is inadequate.”

“The average amount of time spent in courses or rotations dedicated to orthopedics was only 2.1 weeks for all examinees, and 33% of them graduated from medical school with no such exposure.”
[AMAZING!]

This represents <2% of the entire typical medical school curriculum.
[AMAZING!]

The authors suggest that the standard rotation in orthopedic surgery probably emphasizes too many particulars of surgical practice, and does not emphasize conditions that are more clinically important.

“The ideal course in musculoskeletal medicine should concentrate on common outpatient orthopedic problems, orthopedic emergencies, and the musculoskeletal physical examination.”

“Medical school curricula must place a greater emphasis on musculoskeletal medicine. Because of the aging of the population, the prevalence of bone and joint diseases in the United States is already the primary reason that people seek medical care -- is sure to rise. Thus, the demands will soon be even greater. Students must master the topic of musculoskeletal medicine. The results of these studies suggest that they have not.”

KEY POINTS FROM DAN MURPHY

- (1) On this musculoskeletal medicine test, orthopedic residency directors considered a passing score to be 73.1%, and 82% of the examinees residents failed to demonstrate basic competency.
- (2) On this musculoskeletal medicine test, internal medicine residency directors lowered the passing score to 70%, and 78% of the examinees residents still failed to demonstrate basic competency.
- (3) The lowest percent of correct answers pertained to questions relating to the spine, indicating that these residents are least competent in musculoskeletal spine issues.
- (4) These experts in both orthopedics and internal medicine consider new-onset of low back pain in a pediatric population to be an indicator for exposing radiographs.
- (5) The average amount of time spent in medical education on orthopedics was only 2.1 weeks.
- (6) 33% of medical school graduates no exposure orthopedics.
- (7) The orthopedics emphasized in medical school emphasizes surgery, and not common daily clinical problems.
- (8) Musculoskeletal problems will increase in the future because of the aging population.

(9) Medical school preparation in musculoskeletal problems is inadequate.