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AOA Critical Issues

Changes by the Accreditation Council for Graduate Medical Education: Success or Failure?

An AOA Critical Issues Symposium

Terry L. Thompson, MD, Rick W. Wright, MD, and Thomas J. Nasca, MD

Abstract: The Accreditation Council for Graduate Medical Education has introduced far-reaching changes to the educational requirements for postgraduate trainees over the past 15 years. These steps were taken to improve the quality of education and to enhance patient safety. This symposium will explore the design and implementation of these changes and determine if they are succeeding.

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Society wants safe, competent orthopaedic surgeons, and has entrusted the profession to self-regulate the teaching and certification of its trainees. The Accreditation Council for Graduate Medical Education (ACGME) accredits graduate medical education programs in the United States. In 1999, the ACGME Core Competencies and Outcomes Project^{1,2} was initiated. There are 6 competencies that are essential skills that trainees must learn and master during training: (1) medical knowledge, (2) patient care, (3) practice-based learning and improvement, (4) interpersonal and communication skills, (5) professionalism, and (6) systems-based practice. In 2003, the ACGME implemented an 80-hour workweek restriction, and then further restricted work hours in 2011. The Next Accreditation System (NAS)³ and the Milestone Project⁴ were launched in 2013. These im-

portant changes were designed to measure program outcomes by tracing resident performance across the 6 competencies in a progressive, structured framework. In part, the NAS was designed to enhance patient safety and emphasize quality improvement and educational outcomes. The Milestone Project is an evaluation system that contains observable steps in a resident's professional development that describe progress from entry to graduation and beyond.

This American Orthopaedic Association (AOA) symposium⁵ will explore the effect that these changes have had on graduate medical education in orthopaedic surgery in order to determine if they are succeeding. Dr. Thompson describes the Residency Review Committee's (RRC's) transition to the NAS, Dr. Nasca discusses the orthopaedic aspects of the NAS,

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and Dr. Wright provides a program director's perspective on the ACGME changes.

Orthopaedic Surgery RRC Transition to the NAS

The NAS has 6 goals: (1) help produce physicians for the 21st century, (2) accredit programs based on outcomes, (3) reduce the administrative burden of accreditation, (4) provide more opportunity for well-performing programs to innovate, (5) assist underperforming programs to improve, and (6) provide public accountability for outcomes³.

The NAS is a continuous accreditation model. There are no program information forms (PIFs) or cycle lengths. Instead, an annual review of core program data is performed. There are scheduled site visits every 10 years. Focused site visits are performed only for potential violations.

The NAS is based on standards that are described in its Common Program Requirements⁶. Standards, which are revised every 10 years, are categorized as follows:

- Outcome requirements: all programs must adhere
- Core requirements: all programs must adhere
- Detail requirements: not required for programs in substantial compliance

Outcome requirements are statements that specify expected measurable or observable attributes of residents or fellows at key stages of their graduate medical education (e.g., board performance, scholarly activity, and core competencies). Core requirements are statements that define structure, resource, or process elements essential to every graduate medical education program (e.g., faculty, curriculum, evaluations, and duty hours). Detail requirements are statements that describe a specific structure, resource, or process for achieving compliance with a core requirement. Programs in substantial compliance with the outcome requirements may utilize alternative or innovative approaches to meet the core requirements.

NAS program activities include annual data submission, annual program evaluation, and self-study every 10 years. Other possible RRC requests include progress reports for potential problems, a focused site visit, or a full site visit for potential egregious violations.

The transition to the NAS represented a dramatic overhaul in the RRC workflow and increased frequency of monitoring. The annual review of programs does not allow for a detailed assessment as can be done with a site visit. Some guidelines for program assessment were set across specialties, and others were left to the individual RRC to develop. Orthopaedic surgery RRC meetings occur twice per year, in the winter and in the spring. Review materials are made available 6 to 8 weeks in advance.

Our first meeting under the NAS occurred in the winter of 2014. Implementation of the NAS involved transition from the comprehensive review of the program that was done every 3 to 5 years to an annual surveillance of all programs. This represented a large increase in workload. The committee held discussions on how to weigh indicators. The indicators are obtained from the Annual Update, which includes program changes, attrition, scholarly activity, resident and faculty surveys, case logs, and board pass rate. The committee had to determine

how to interpret the Resident Survey and scholarly activity on an annual basis as opposed to every 3 to 5 years.

By the second meeting in the spring of 2014, we had made great progress. We created a useful dashboard for the indicators. The committee determined a threshold for each indicator that would merit review by the full committee. We resolved old citations. Criteria were determined for full and focused site visits. After the initial screening, there were fewer programs for the full committee to review.

Future meetings will include assessment of the milestones reports. The committee will spend more time on reports from focused site visits and self-study reports.

The NAS has offered several improvements to the overall process. The RRC no longer looks at the detail requirements for programs in substantial compliance. We are able to provide annual feedback on areas for improvement and concerning trends. Citations can be removed if they are corrected by the next annual review. Notification letters will become more useful.

Orthopaedic Aspects of the NAS

Orthopaedic Accreditation Decision Summary

One of the factors to consider when changing accreditation systems is the net impact of the change on key outcome parameters. Prior to the implementation of the NAS, 142 of 152 orthopaedic surgery residency programs had full accreditation status, and the remainder had accreditation with warning. In the first year (2013 to 2014) of the NAS, 136 programs had continued accreditation status, 14 had accreditation with warning, and 2 had probationary accreditation. For 2014 to 2015, accreditation status for several programs is still being adjudicated; however, 14 programs will likely remain under close scrutiny. To summarize, the vast majority of programs are doing well and must comply with the core requirements rather than the detail requirements⁶. Thus, the net accreditation outcome of the change in the system does not appear to be particularly onerous.

Continuous Program Improvement Cycle

We must consider community needs in the preparation of our residents. This can be accomplished through a continuous program improvement cycle⁷ or practice-based learning and improvement programs, with the goal being excellence in achievement of program aims. Each orthopaedic program has a profile. The graduates are a result of recruitment, and recruitment is largely determined by the focus of the program. The ACGME is asking programs to begin to formalize that process and to try to understand the subgroup of orthopaedic surgeons that they are trying to prepare for the future. Whether the program is basic research-oriented or community-based and clinically focused, it should be designed to provide the core educational elements, and specifically designed to educate that subcohort of trainees. The program should track the outcomes of that unique dimension to determine if it has achieved those aims, and, if not, the program will need to reexamine whether the aims are logical.

There is flexibility built into the design of the accreditation process that allows a wide range of training opportunities

that satisfy the requirements. Programs must intentionally design the curriculum rather than passively allow it to happen. In addressing community needs, programs must determine the skill set that its graduates will require in order to meet the patient needs that must be satisfied when they enter clinical practice. Although not considered in the past, these are fundamental questions that must be addressed in the design and implementation of the educational program. The traditional job of the program director has been to recruit and fill the program with the highest-caliber individuals, take care of patients, and satisfy the RRC requirements. Now, the ACGME is asking the program director to do more.

Ten-Year Self-Study and Site Visit

At the 8-year mark of the 10-year cycle, postgraduate programs are expected to do a self-study⁸. Programs must (1) review trends over time, (2) review annual program evaluations, (3) have a departmental reflection about the educational goals of the program, (4) review program aims, (5) prepare a self-study report, and (6) prepare for a site visit. Since the majority of programs are fully accredited, the ACGME will assess compliance with the core standards. These programs are only responsible for satisfying the core requirements, not the detail requirements, so that they have the opportunity to innovate. Through the site visit, the ACGME hopes to learn about the innovations that have been spawned by this accreditation model.

Clinical Learning Environment Review

The purpose of the Clinical Learning Environment Review (CLER)⁹ is to promote integration of the safety and quality goals of the programs with those of the sponsoring institutions. What exists currently are islands of safety projects that are running in postgraduate programs that may or may not relate systematically to those of the institution. Residents frequently are not knowledgeable about the safety and quality programs in their institutions. Early CLER visits have shown that safety and quality are fragmented. What the ACGME is trying to promote from the leadership on down is closer integration of postgraduate programs into the fabric of the safety and quality programs of the institution.

What Will Drive the Structure and Content of Our Residency Programs in the Near Future?

Through the NAS, the ACGME will provide programs with information in aggregate on a national level so that they can see the performance of their graduates and determine if they want to modify their training portfolio. Programs will be able to determine how well their learners are moving in the trajectory that the profession has set forth, as described in the Milestone Project¹⁰. A national orthopaedic curriculum would be a step toward the goal of standardizing the training that should be provided in orthopaedic surgery education. The objective of a national orthopaedic curriculum is to define the essential knowledge and skills that are needed to be a competent general orthopaedic surgeon. For example, the goal is to be able to say that an orthopaedic surgeon trained in Philadelphia has

the same essential skills as an orthopaedic surgeon trained in San Francisco. At the present time, based on performance on the certification examinations, all we can say is that orthopaedic surgeons trained in Philadelphia, when compared with those in San Francisco, demonstrate similar knowledge.

A Program Director's Perspective on ACGME Changes

Two years ago, when the NAS was installed, many of us had substantial concerns regarding its implications. Concerns and uncertainties included the requirements of the Milestone Project, the Clinical Competency Committee (CCC)¹¹, case minimums¹², and the transition from a periodic site visit to an annual report. Dr. William N. Levine addressed many of these uncertainties and concerns in an AOA symposium¹³ in 2014. Fortunately, in my opinion, many of these changes have been positive, and many of our fears were unsubstantiated.

Our biggest concern and unknown was the role and implementation of the Milestone Project, but I believe it has worked well overall. The positives have included a more accurate determination of skill level, relative ease of administering the evaluation, and the ability for residents to participate in the evaluation process. The negatives have included the fact that faculty had to learn a new evaluation system, data entry for residency programs is relatively clunky, and no one is certain just how the RRC will ultimately use the data. Additionally, I believe the timing was wrong since it required data entry in December, when many programs have not yet undergone half of their rotations, and in June, before the academic year is completed.

The CCC has been an excellent addition to our residency program. This has allowed increased faculty involvement in our residency program, and allowed young faculty to participate. It has created different perspectives regarding the performance of our residents and has forced in-depth analysis, which occurs in addition to our program director's semiannual meeting with the residents. Currently our CCC consists of 8 members.

Case minimums continue to create uncertainty in my mind. It has highlighted the problems that residents have with understanding coding, and has allowed us to educate them in this domain. It allows for us to compare residents in terms of their experience. When I see that a resident has substantially fewer cases than the rest of the class, I assume that (1) he or she is not recording all of his or her cases, or (2) he or she is finding ways to avoid cases. Case minimums also do a nice job of demonstrating imbalance issues in a program with undue emphasis on specific clinical areas. It is still unclear to me how the RRC will use this information in the future. We are fortunate at Washington University School of Medicine to have a relatively balanced program; thus, we have not required any rotation or schedule changes. An additional topic to discuss, which is not necessarily related to the implementation of the NAS, is the Resident Survey. I think this survey can serve as an excellent barometer of the program. Areas of concern noted in the survey typically represent the tip of the iceberg and require further pursuit of information to explore the possible negatives that

have been revealed. In this regard, the Resident Survey has been relatively helpful.

The second biggest concern arising from the implementation of the NAS was moving from infrequent site visits to submitting an annual report. In general, the annual report requires less work, but unfortunately provides less helpful information. The site visit generated more angst and substantially more work, but gave us more and better information to help improve our programs. The Residency Coordinator at my institution has found the annual report to be a much more palatable process than previous site visit preparation. I, on the other hand, feel that site visits have had a substantial impact on identifying both positives and negatives about the program and gave us the impetus for change.

With the implementation of the annual report, I remain uncertain as to how the program truly will be judged going forward, and whether or not the RRC actually knows the state of the program. I am currently using case minimums, board pass rate, and a sense of a current resident's progress in comparison with previous successful residents to judge the status of the individual resident and our program.

Another matter that I would like to address is my concern that this second wave of duty hour rules and regulations by the ACGME has not improved performance or learning. Many rotations currently are night float rotations to avoid having residents work past the 16-hour maximum rule, and, in addition to minimal surgical opportunities during the night, there are no clinics. The restrictions in working hours also have resulted in increased handoffs in our program, and my residents believe that this has decreased patient safety. On the other hand, the American Board of Orthopaedic Surgery and the ACGME-mandated change to 6 months of orthopaedics^{14,15} as an intern, in addition to the intern skills month, has been incredibly beneficial for the residents. In my opinion, this is the biggest positive change in resident education in the last 5 years.

In conclusion, the NAS has not caused the problems that we may have anticipated, and, overall, has been reasonable and acceptable. In general, our staff feels it has led to less work and no substantial cost increase, except for the required surgical skills education for the interns. Unfortunately, I do believe that there is less constructive feedback from the RRC, and I am not sure that the committee is aware how well each program is doing in comparison with the past. I am sure that this will be addressed and corrected if it remains a valid concern.

Conclusion

Core competencies, duty hour restrictions, the Milestone Project, case minimums, and the NAS have dramatically affected graduate medical education in orthopaedic surgery. The goals are to improve resident education, measure program outcomes, and enhance patient safety, thereby meeting the needs of society by producing safe and competent orthopaedic surgeons. The NAS will provide each program with tools to critically analyze the success of its curriculum through continuous program improvement. Programs that are in substantial compliance will not be monitored for the detail requirements, and they will be allowed to innovate. The CLER will promote the alignment of program safety projects with those of the sponsoring institution.

Like most major changes, the reception has been mixed, and the expected improvements have been slow to realize. Milestone reporting is awkwardly timed and work-intensive. Furthermore, it is not clear to the individual programs how these evaluations will be used by the ACGME for accreditation. It will take time to determine the success of the Milestone Project as it is phased in over several years. Annual updates require the input of a large amount of data, and the resulting notification letters may provide less useful feedback to programs than site visit reports. It is not clear that restrictions on duty hours have improved resident performance or patient safety.

Because the NAS has only recently been implemented, it is far too soon to measure its impact on orthopaedic education. However, the foundation has been laid to be more objective in measuring outcomes than ever before. More time is needed to determine if the changes implemented by the ACGME will achieve its goals. ■

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