

**HOD ACTION: Recommendations in Council on Medical Education Report 4 adopted and the remainder of the report filed.**

REPORT 04 OF THE COUNCIL ON MEDICAL EDUCATION (A-23)  
Decreasing Bias in Assessments of Medical Student Clinical Clerkship  
Performance (Resolution 309-A-22, Resolve 2)  
(Reference Committee C)

EXECUTIVE SUMMARY

Per a directive from the House of Delegates (HOD), the American Medical Association (AMA) has been asked to study and report back on the impact of two-interval clinical clerkship grading systems on residency application outcomes, clinical performance during residency, and bias.

This report defines two-interval grading (binary pass/fail with no other hierarchical ranking) and notes existing policy regarding pass/fail in non-clinical curricula. This report offers the theoretical background for the importance of pass/fail grading within competency-based medical education and formative assessment. It also highlights the competitive medical education system and the ongoing demand for summative assessment and ranking, particularly due to applicant selection challenges impacting both learners and program directors.

Due to a need for additional future research combining the multiple factors indicated by the HOD's directive, this report instead summarizes research on each relevant topic individually, including significant variability and bias within clinical clerkship grading; existing recommendations toward improving reliability in this area; background on how grading system data is collected; proportions of two-interval pass/fail grading systems across medical schools; and current overall research on residency application outcomes, longitudinal performance tracking, and bias issues. This report emphasizes the diverse factors and potential unintended consequences that may arise when hierarchy is eliminated in one area of medical education and ranking decisions are shifted to other areas.

This report proposes reaffirmation of current AMA policy and offers new recommendations that continue to encourage work in support of the Coalition for Physician Accountability's Undergraduate Medical Education-Graduate Medical Education Review Committee "Recommendations for Comprehensive Improvement of the UME-GME Transition"; encourage and support UME institutions' investment in a) developing more valid, reliable, and unbiased summative assessments for clinical clerkships, including development of assessors' awareness regarding structural inequities in education and wider society, and b) providing standardized and meaningful competency data to program directors; encourage institutions to publish information related to clinical clerkship grading systems and residency match rates, with subset data for learners from varied groups, including those that have been historically underrepresented in medicine or may be affected by bias; and encourage UME institutions to include grading system methodology with grades shared with residency programs.

**HOD ACTION: Recommendations in Council on Medical Education Report 4 adopted and the remainder of the report filed.**

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 04-A-23

Subject: Decreasing Bias in Assessments of Medical Student Clinical Clerkship Performance (Resolution 309-A-22, Resolve 2)

Presented by: John P. Williams, MD, Chair

Referred to: Reference Committee C

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1 Resolution 309-A-22, “Decreasing Bias in Evaluations of Medical Student Performance,” was  
2 introduced by the Medical Student Section at the 2022 Annual Meeting of the American Medical  
3 Association (AMA). While Resolve 1 was adopted into AMA Policy [D-295.307](#), Resolve 2 was  
4 referred for study. The referred clause asked that our AMA:

5  
6 Study the impact of two-interval clinical clerkship grading systems on residency application  
7 outcomes and clinical performance during residency.  
8

9 Testimony emphasized the current difficulty in accessing data needed to inform such a study and  
10 work underway via the AMA ChangeMedEd initiative toward longitudinal tracking. Testimony  
11 also highlighted challenges faced by program directors, the delicate balance of wanting more data  
12 versus ensuring unbiased data, and equity concerns regarding current grading models and diverse  
13 learners. Reference Committee C and the House of Delegates (HOD) felt that these concerns  
14 warranted further study. This report is in response to this referral.  
15

## 16 BACKGROUND

### 17 *Clinical Clerkships and Two-Interval Grading*

18 In clinical clerkships, medical students are immersed in learning experiences involving direct  
19 patient care and application of clinical sciences.<sup>1</sup> This comprises both core and elective rotations,  
20 beginning in the third year of medical school, and with significant variability between clerkship  
21 experiences based on seasonal infectious disease cycles, electives chosen, and other considerations.  
22  
23  
24

25 Two-interval grading refers to grading structures with only two options, either pass or fail, though  
26 these grades may also be accompanied by narrative information. Two-interval pass/fail grading is  
27 distinct from generalized pass/fail grading insofar as some pass/fail grading structures offer  
28 opportunities for grading with honors and other hierarchies, such as “high pass,” as opposed to the  
29 binary pass/fail. While AMA Policy [H-295.866](#), “Supporting Two-Interval Grading Systems for  
30 Medical Education,” encourages “the establishment of a two-interval grading system in medical  
31 colleges and universities in the United States for the non-clinical curriculum,” current policy does  
32 not address clinical curriculum.  
33

### 34 *Competency-Based Medical Education and the “Growth Mindset”*

35

1 The current rationale for two-interval grading centers around learner trust and growth within the  
2 move toward competency-based medical education, or CBME (see also AMA policy [D-295.317](#)).  
3 Specifically, for medical education to focus on outcomes via a developmental approach,  
4 vulnerability for learners must be acknowledged and institutional culture must demonstrate  
5 trustworthiness, as learner gaps and needs may only be addressed if acknowledged rather than  
6 hidden due to performance pressure.<sup>2</sup> Thus, two-interval pass/fail frees the learner from striving for  
7 a specific performative grade, allowing more transparency around gaps. This redirects focus to  
8 effectively meeting required competencies (passing) after careful consideration of areas for  
9 improvement, rather than concealing difficulties to rank higher. Equity between learners is  
10 complex and not inherently achieved by grading system changes alone, as discussed in later  
11 sections. Biases related to race, gender, disability, or other factors exist in a wider societal  
12 structure, and interventions require a multi-pronged approach.<sup>3</sup> However, even highly rigorous and  
13 non-biased assessments would drive undesired behaviors (concealment versus transparency toward  
14 growth) if graded or ranked.<sup>4</sup> Nonetheless, larger medical education and societal structures  
15 currently create a demand for ranking, as discussed below.

### 16 17 *Applicant Selection Challenges*

18  
19 A significant concern regarding possible elimination of tiered rankings in clerkship grades involves  
20 the increasing number of residency applications and growing challenges for programs when  
21 selecting from an overwhelming number of candidates. The United States Medical Licensing  
22 Examination<sup>®</sup> (USMLE<sup>®</sup>) Step 1 examination's shift to pass/fail in January 2022 sparked concerns  
23 in this regard from residency program directors: a study of internal medicine program directors  
24 found that, in the absence of graded Step 1 examination scores, program personnel would be  
25 increasingly likely to weight such variables as ranked clerkship grades, Step 2 exam scores,  
26 personal knowledge of the applicant, and audition electives; respondents also expressed the belief  
27 that osteopathic applicants may potentially be further disadvantaged.<sup>5</sup> Data regarding actual impact  
28 is unknown because not enough time has passed. Without an overhaul of the application process  
29 and infrastructure supportive of the time necessary for holistic review of applicants<sup>6</sup> or transition  
30 away from competition-based processes (i.e., randomization via lottery), eliminating rankings in  
31 certain areas may indeed pose challenges. However, clerkship grades are an unreliable measure for  
32 evaluating residency applicants and challenged by inconsistencies and bias, as further described in  
33 the next section.

### 34 35 *Unreliability and Variability in Clinical Clerkship Grades*

36  
37 Despite perceptions of their importance in selecting program applicants, clinical clerkship grades  
38 are generally found to be inconsistent and unreliable.<sup>7</sup> In one study, most students believed that  
39 clerkship grades were unfair and that being liked by specific supervisors most influenced grading<sup>8</sup>;  
40 further data confirms the detachment of clerkship grades from useful assessment criteria. One study  
41 noted that most medical schools used a four-tier system of fail, pass, high pass, or honors, but all  
42 defined these words subjectively and inconsistently, even within the same programs; this variability  
43 across schools and even within programs poses a challenge to accurate stratification of applicants.<sup>9</sup>  
44 U.S. News & World Report Top 20 medical schools were also more likely to disproportionately  
45 assign the highest clerkship grade to a higher percentage of students than other medical schools,<sup>10</sup>  
46 even though these schools were also less likely to implement grade comparison at all.<sup>11</sup> Clerkship  
47 grades often suggest the “illusion of objectivity,” despite no standard approach to assigning grades  
48 or rank, flawed data not based on actual observations, high stress for students, and time-based  
49 grading paradigms that promote inequities.<sup>12</sup>

### 50 51 *Equity and Diversity Concerns Within Medical School Assessment*

Beyond concerns of general unreliability, equity and diversity concerns also arise within clinical clerkship assessment. One 2018 study (which defined “underrepresented in medicine” narrowly as students from the racial or ethnic groups Black, Latina/o/x, Native American, and Alaska Native) demonstrated differences in clerkship director ratings that consistently favored non-underrepresented students, and while these differences were small, they created an amplification cascade later in the educational experience, compounding challenges already faced by these students due to structural racism.<sup>13</sup> Another 2019 study demonstrated that, even after accounting for confounding variables, grades were more likely to favor white students above both underrepresented and non-underrepresented students of color.<sup>14</sup> Even prior to grading itself, the training environment and overall social environment already hinders students from marginalized racial/ethnic groups, depleting cognitive resources and interfering with learning,<sup>15</sup> such that even with more “objective” grading standards, societal bias already creates an inequitable environment for learning. Finally, while research that addresses the specific topic of clinical clerkship assessment for other marginalized identities/experiences is limited, learners are subjected to systemic biases in many realms, such as LGBTQ issues,<sup>16</sup> socioeconomic status<sup>17</sup>, and disability.<sup>18</sup>

## DISCUSSION

Course grades perform two purported functions: giving students a summative evaluation of their course performance and providing a standardized means of communicating student performance to third parties. Grades should be distinguished from formative assessments, which are focused on improving student learning. As a summative evaluation, grades should be based on valid and reliable data and contain sufficient information to be useful to students and third parties, with attention to the ways larger systemic bias and inequitable assignment of merit influences even otherwise reliable data.<sup>19</sup> Current data demonstrated above indicates significant reliability concerns in current grading systems.

Little data exists to demonstrate the impact of two-interval clinical clerkship grading on residency application outcomes and clinical performance during residency, and even less data that includes analysis by race, gender, socioeconomic class, disability, or other relevant demographics. This report seeks to split the question into its various components, provide background on how some data is collected and reported, offer currently available research, and offer suggestions on how this data might be gathered in the future.

### *Current Data and Challenges Regarding Pass/Fail in Clinical Clerkships*

Much current research suggests that two-interval pass/fail grading systems improve learner well-being in the preclinical years,<sup>20</sup> and academic performance remains similar, with an increased opportunity for a reduction of stress and less competitive learning environment.<sup>21</sup> Proponents of CBME also generally advocate to reframe two-interval pass/fail as two-interval “only pass/not yet pass” and to utilize criterion-referenced assessment such that learners will pass in time.<sup>22</sup> Support for CBME is inherently linked to removing hierarchical grading structures in all aspects of medical education.<sup>23</sup>

Data around usage of pass/fail grading systems in clinical clerkships is collected by the Liaison Committee on Medical Education (LCME) for allopathic schools and by the American Association of Colleges of Osteopathic Medicine (AACOM) for osteopathic schools, but few analyses of impact exist.

The LCME’s files indicated the following data for each portion of the curriculum:

<b>LCME Part II Totals: Type of Grading System Used (2019-2020)</b>			
Grading system	Required clinical clerkships	Fourth-year selectives/sub-internships	Electives
<b>Pass-fail</b>	11	32	84
<b>Honors-pass-fail</b>	26	27	21
<b>Honors-high pass-pass-fail</b>	85	68	57
<b>Numerical grade</b>	6	1	0
<b>Letter grade</b>	24	19	10
<b>Other</b>	13	8	7

<b>LCME Part II Totals: Type of Grading System Used (2020-2021)</b>			
Grading system	Required clinical clerkships	Fourth-year selectives/sub-internships	Electives
<b>Pass-fail</b>	24	37	92
<b>Honors-pass-fail</b>	25	27	22
<b>Honors-high pass-pass-fail</b>	81	72	54
<b>Numerical grade</b>	7	4	7
<b>Letter grade</b>	20	18	9
<b>Other</b>	11	10	12

<b>LCME Part II Totals: Type of Grading System Used (2021-2022)</b>			
Grading system	Required clinical clerkships	Fourth-year selectives/sub-internships	Electives
<b>Pass-fail</b>	20	37	90
<b>Honors-pass-fail</b>	26	27	18
<b>Honors-high pass-pass-fail</b>	82	73	55
<b>Numerical grade</b>	3	0	0
<b>Letter grade</b>	19	15	10
<b>Other</b>	9	8	10

- 1 As seen above, within required clinical clerkships, two-interval pass/fail accounted for only about  
2 seven percent of grading systems in 2019-2020 and 14 percent in 2020-2021, with a slight decline  
3 in 2021-2022 to 20 schools out of 155, or about 13 percent. In fourth-year medical selective  
4 rotations, two-interval pass/fail grading systems accounted for about 21 percent in 2019-2020, 22  
5 percent in 2020-2021, and 23 percent in 2021-2022. Elective clerkships were more likely to be  
6 two-interval pass/fail than other clerkships, as this accounted for about 47 percent of grading  
7 systems in both 2019-2020 and 2020-2021, and about 49 percent in 2021-2022.  
8
- 9 The most recent AACOM data available showed that 28 schools used pass/fail to grade required  
10 clinical clerkships, while 21 schools used pass/fail for elective/selective grading.<sup>24</sup> However, this  
11 data reflects multi-interval pass/fail variants including honors and does not indicate which, if any,  
12 use two-interval grading. Looking closer, a 2020 study of transcripts indicated that osteopathic  
13 medical schools' grading system distribution in clinical years was 59.5 percent honors, 29.7

1 percent letter grade, and 10.8 percent other systems. Only one of the 37 osteopathic medical  
2 schools participating in this study used two-interval pass/fail systems without tiered indicators such  
3 as “high pass” in the clinical years.<sup>25</sup> This study demonstrated the variability between grading  
4 systems, both within and between allopathic and osteopathic schools, and the rarity of two-interval  
5 pass/fail in clerkship years.

6  
7 Given limited implementation of two-interval pass/fail, research on the impact of this grading  
8 mechanism is even more limited. In 2021, faculty from one institution responded to the elimination  
9 of tiered clerkship grades with optimism for well-being and the learning environment, as well as  
10 hesitations, such as lack of readiness for hierarchies in later educational structures and concerns  
11 about the residency selection process.<sup>26</sup> Students in a different 2021 qualitative study shared that  
12 implementation of two-interval pass/fail core clerkship grading, in combination with enhanced  
13 formative feedback, resulted in benefits to intrinsic motivation, increased ability to seek feedback  
14 and improvements, lowered stress, and perceived mitigation of equity concerns.<sup>27</sup> However, this  
15 perceived mitigation was not confirmed with outcomes-based data, nor are these perceptions  
16 disaggregated by respondent demographics. In another study from 2022, transitioning to two-  
17 interval clinical clerkship grades with enhanced feedback was related to moderate to large  
18 improvements in students’ perceptions of grading and the learning environment, toward that of  
19 “mastery-oriented learning” rather than performative behavior. Simultaneously, deeper learner  
20 concerns around bias in evaluators and inequitable narrative summaries remained.<sup>28</sup>

### 21 22 *Current Clinical Clerkship Recommendations for Eliminating Grading Bias*

23  
24 Grappling with known equity issues, the Alliance for Academic Internal Medicine’s 2021 report,  
25 “Aiming for Equity in Clerkship Grading: Recommendations for Reducing the Effects of Structural  
26 and Individual Bias” indicated the scarcity of evidence-based resources for eliminating bias in  
27 clinical clerkship grading. Using a socioecological model, the authors suggest several possible  
28 interventions for further implementation and study, including but not limited to faculty  
29 development, non-normative competency-based grading, and refraining from standardized cut-off  
30 scores to designate honors in grading, though recommendations do not explicitly suggest removal  
31 of honors within grading.<sup>29</sup>

32  
33 Also regarding systemic bias concerns in grading, the Coalition for Physician Accountability’s  
34 Undergraduate Medical Education-Graduate Medical Education Review Committee recommended  
35 the following in 2021: “To eliminate systemic biases in grading, medical schools must perform  
36 initial and annual exploratory reviews of clinical clerkship grading, including patterns of grade  
37 distribution based on race, ethnicity, gender identity/expression, sexual identity/orientation,  
38 religion, visa status, ability, and location (e.g., satellite or clinical site location), and perform  
39 regular faculty development to mitigate bias. Programs across the UME-GME continuum should  
40 explore the impact of bias on student and resident evaluations, match results, attrition, and selection  
41 to honor societies.”<sup>30</sup>

42  
43 In 2022, Russo et al. demonstrated the bias present within clinical clerkship grades and suggested  
44 that two-interval pass/fail grading as one component may mitigate the impact of bias, though it will  
45 not eliminate bias itself. “Shifting to a competence-based assessment model will give the learner  
46 multiple opportunities over time to demonstrate their mastery of skills and knowledge, thereby  
47 reducing the power of a single biased assessment.”<sup>31</sup>

48  
49 Due to the complexities of bias within clinical clerkship grading systems, the need for innovation is  
50 clear, but additional evidence is required to understand whether two-interval pass/fail grading  
51 effectively addresses these challenges.

1  
2 *Current Data and Challenges Regarding Pass/Fail and Residency Application Outcomes*  
3

4 When considering how to understand the impact two-interval pass/fail in clinical clerkships may  
5 have on residency application outcomes, especially regarding bias and equity, one must first  
6 consider what data is needed, and how this data is currently collected.  
7

8 Match results from applications to residency programs are reported in aggregate by both the  
9 National Resident Matching Program (NRMP) and by medical schools. While it might be possible  
10 to determine some correlation between the schools that use two-interval pass/fail in clinical  
11 clerkships and their aggregate Match results, all other confounding factors would need to be  
12 considered, including other aspects of the school and all other determining factors considered in  
13 applications, both on larger-scale and individual learner levels. When also considering learner  
14 diversity and any potential impacts of bias, information would need to be disaggregated into  
15 multiple categories, such as race, ethnicity, disability, gender identity, sexual orientation,  
16 socioeconomic status, and more. Some of this information is currently collected in aggregate ways,  
17 such as through the Association of American Medical Colleges' (AAMC) Medical School  
18 Graduation Questionnaire,<sup>32</sup> but not all aspects of bias are addressed; these results are not tied to  
19 specific application outcomes or individuals due to privacy concerns. Further insights on two-  
20 interval pass/fail grading systems' impact on bias in residency application outcomes would require  
21 the limited number of schools with two-interval pass/fail in clinical clerkship to study this  
22 specifically, comparing archival data before two-interval grading with current data, and with a  
23 student population large enough to ensure confidentiality for participants. This data would then  
24 need to be published. Multiple schools would need to achieve this to provide sufficient numbers to  
25 allow for comparison between institutions, and between allopathic versus osteopathic programs.  
26

27 Outside of medical schools, in a related field, a 2019 study found that for Doctor of Pharmacy  
28 students within advanced pharmacy practice experiences, there was little statistical difference in  
29 residency match rates between applicants with two-interval pass/fail grades and tiered grades to  
30 assess clinical experiences. However, pharmacy education exists in a different context than medical  
31 education, and extrapolations cannot necessarily be made.  
32

33 As discussed in earlier sections, it is well-known that bias is a concern in residency application  
34 outcomes. A 2019 study found no statistically significant differences in residency application  
35 outcomes in one institution when pre-clinical grades are pass/fail,<sup>33</sup> but no such research currently  
36 exists for clinical clerkships. Current research merely indicates that clinical clerkship grades overall  
37 are not useful for ranking residency applications.<sup>34</sup> A 2021 study suggested that receiving honors in  
38 clinical clerkship grading contributed to matching into the applicant's top five programs in  
39 OB/GYN<sup>35</sup> where honors were available, but that minority and male students were less likely to  
40 receive honors, suggesting further need for research into grading disparities.  
41

42 Residency programs must currently create a rank list of applicants for admission, and in numerous  
43 specialties and for many residency programs, the number of qualified applicants to be evaluated  
44 greatly exceeds the number of positions available. Medical school clerkship grades are among  
45 several factors used by residency programs to determine the ranking of applicants. Though these  
46 grades are currently unreliable, as discussed above, conversion to two-interval pass/fail grading  
47 systems for clerkships without other interventions will require residency programs to weigh other  
48 data points more heavily when reviewing applications, such as recommendation letters or perceived  
49 medical school reputation. It is uncertain if these alternative factors are more valid or subject to less  
50 bias than clerkship grades, and the impacts on diverse student groups are still uncertain. While  
51 further knowledge is gathered, medical schools can invest in improving their grading systems to

1 decrease bias, provide transparency to residency programs regarding their grading system  
2 methodologies, and invest in methods of providing more useful information to residency programs.

### 3 4 *Current Data and Challenges Regarding Longitudinal Tracking into Residency*

5  
6 Additional challenges arise when seeking data on how two-interval pass/fail grades in clinical  
7 clerkship and bias may impact residency performance outcomes. For longitudinal tracking into  
8 residency, current data sources include feedback from program directors to school deans, either  
9 sent by the school or coordinated by the AAMC Resident Readiness Survey.<sup>36</sup> However,  
10 information published by the AAMC does not track comparatively across schools, and even  
11 comparative school data would need to account for confounding factors, not merely each school's  
12 clinical clerkship grading system. As with application outcome challenges, residency performance  
13 outcome challenges also include the need to collect and disaggregate demographic information for  
14 learners without violating learner privacy.

15  
16 There is currently no pre-existing research to draw from on the direct impact of two-interval  
17 pass/fail clinical clerkship grading systems on residency performance outcomes, with or without  
18 the consideration of equity and bias. One 2019 study that begins to approach the topic is a meta-  
19 analysis of program directors' perceptions of residency performance among residents from schools  
20 using two-interval pass/fail versus tiered clerkship grading, which found no significant difference  
21 in perceptions of overall performance between these groups.<sup>37</sup> However, perceptions of  
22 performance do not inherently translate to actual actions taken nor actual criterion-referenced  
23 performance and carry the additional limitation of reflecting only on those who were already  
24 admitted into residency.

25  
26 Some progress has been made on overall development of longitudinal tracking, though not related  
27 to these topics specifically. For instance, the AMA Accelerating Change in Medical Education  
28 Consortium created a personalized graduate profile for 32 medical schools, addressing three core  
29 questions of workforce, clinical exposure, and quality of care. This may serve as "a proof of  
30 concept" for further research into the topics of this report.<sup>38</sup> The Accreditation Council for  
31 Graduate Medical Education (ACGME) also collects milestone data by specialty,<sup>39</sup> but this data is  
32 not currently compared with data on pass/fail grading systems in clinical clerkships. There is also  
33 evidence to suggest that racial and ethnic biases may impact milestone levels. For instance, a 2022  
34 study in pediatric programs found race and gender disparities in assessments of trainees in  
35 residency programs.<sup>40</sup>

### 36 37 RELEVANT AMA POLICY

38  
39 The AMA has extensive policy related to grading systems and mitigating bias in medical  
40 education. Some examples are as follows:

- 41  
42
- 43 • [D-200.985](#), "Strategies for Enhancing Diversity in the Physician Workforce," recommends  
44 that residency/fellowship programs use holistic assessments of applicants that take into  
45 account the diversity of preparation and the variety of talents that applicants bring to their  
46 education.
  - 47 • [D-310.945](#), "Mitigating Demographic and Socioeconomic Inequities in the Residency and  
48 Fellowship Selection Process," encourages medical schools, medical honor societies, and  
49 residency/fellowship programs to work toward ethical, equitable, and transparent recruiting  
processes, which are made available to all applicants.



- 1 • [D-295.988](#), “Clinical Skills Assessment During Medical School,” works with appropriate  
2 stakeholders to assure the processes for assessing clinical skills are evidence-based and  
3 most efficiently use the time and financial resources of those being assessed.
- 4 • [D-295.317](#), “Competency Based Medical Education Across the Continuum of Education  
5 and Practice,” continues to study and identify challenges and opportunities and critical  
6 stakeholders in achieving a competency-based curriculum across the medical education  
7 continuum and other health professions that provides significant value to those  
8 participating in these curricula and their patients.
- 9 • [D-295.318](#), “Competency-Based Portfolio Assessment of Medical Students,” develops  
10 pilot projects to study the impact of competency-based frameworks on student graduation,  
11 the residency match process, and off-cycle entry into residency programs.
- 12 • [D-295.963](#), “Continued Support for Diversity in Medical Education,” works with  
13 appropriate stakeholders to commission and enact the recommendations of a forward-  
14 looking, cross-continuum, external study of 21st century medical education focused on  
15 reimagining the future of health equity and racial justice in medical education.
- 16 • [D-295.307](#), “Decreasing Bias in Evaluations of Medical Student Performance,” works with  
17 appropriate stakeholders to promote efforts to evaluate methods for decreasing the impact  
18 of bias in medical student performance evaluation as well as reducing the impact of bias in  
19 the review of disciplinary actions.
- 20 • [D-295.983](#), “Fostering Professionalism During Medical School and Residency Training,”  
21 continues to study the clinical training environment to identify the best methods and  
22 practices used by medical schools and residency programs to foster the development of  
23 professionalism.
- 24 • [H-350.979](#), “Increase the Representation of Minority and Economically Disadvantaged  
25 Populations in the Medical Profession,” supports increasing the representation of  
26 minorities in the physician population.
- 27 • [D-295.322](#), “Increasing Demographically Diverse Representation in Liaison Committee on  
28 Medical Education Accredited Medical Schools,” studies medical school implementation  
29 of the Liaison Committee on Medical Education (LCME) Standard IS-16 and share the  
30 results with appropriate accreditation organizations and all state medical associations for  
31 action on demographic diversity.
- 32 • [H-295.866](#), “Supporting Two-Interval Grading Systems for Medical Education,” works  
33 with stakeholders to encourage the establishment of a two-interval grading system in  
34 medical colleges and universities in the United States for the non-clinical curriculum.  
35

36 These policies are listed in full detail in Appendix A.

## 37 38 SUMMARY AND RECOMMENDATIONS

39  
40 Fair and equitable assessment in medical school improves career opportunities for medical students  
41 and benefits the public which deserves a more diverse physician workforce. Grades are one form of  
42 summative assessment of student performance, and summative assessment should provide third  
43 parties with important information about learner competencies and readiness. Current research  
44 demonstrates that despite the weighting of clinical clerkship grades in residency applicant  
45 selection, these grades are currently inconsistent, unreliable, and biased. Thus, medical schools  
46 should invest in developing valid, reliable, unbiased, and informative assessments for clerkships.  
47 Two-interval pass/fail clinical clerkship grading systems are rare in allopathic and osteopathic  
48 schools alike, and understanding their impacts on residency application outcomes and clinical  
49 performance during residency, especially from an equity lens, will require significant effort by  
50 researchers and medical education stakeholders. Efforts toward longitudinal tracking in general are

1 also still in the early stages. However, both AMA policy and pre-existing research do support  
2 overall well-being and learning environment improvements related to two-interval pass/fail grading  
3 systems in the pre-clinical years. Not all schools have implemented this grading structure, and  
4 continued encouragement to do so is warranted.

5  
6 Learners, including learners experiencing systemic oppression in one or many domains, are not a  
7 monolith, and the need for nuance is paramount as these issues are addressed. Inequity in clinical  
8 clerkship assessment may be one symptom of the wider culture of systemic bias as well as a  
9 reflection of the current learning environment of competition within medical education. The  
10 “bottleneck” within the popularity of certain specialties over others also amplifies the competitive  
11 environment. Without a greater shift within medical education’s values, or without tending to the  
12 entire landscape of medical education, modifying one component piece may send varying intended  
13 and unintended ripple effects outwards to the other components of learner assessment—potentially  
14 shifting pressure and bias from one area to another, and having unknown and heterogeneous effects  
15 on a variety of learners. It is difficult to assess only one piece of the overall system to reflect an  
16 understanding of overall equity in assessment, and even more challenging to correct only one piece  
17 of a much wider puzzle. Despite these challenges, further gathering of data and the exploration of  
18 innovations across the continuum of medical education is beneficial, with an emphasis on attention  
19 to the needs of unique populations, especially those that are underrepresented in medicine or  
20 experience bias. An evidence base for best practices and interventions can and should be gathered.  
21 Strategies must focus on the wider whole, including evaluating the benefits and challenges of  
22 moving to a competency-based system with equity at the forefront, rather than a time-based and  
23 competitive system.

24  
25 The Council on Medical Education therefore recommends that the following recommendations be  
26 adopted in lieu of Resolution 309-A-22, Resolve 2, and the remainder of this report be filed:

27  
28 That our American Medical Association (AMA):

- 29
- 30 1. Continue to encourage work in support of the Coalition for Physician Accountability’s  
31 Undergraduate Medical Education-Graduate Medical Education Review Committee  
32 “Recommendations for Comprehensive Improvement of the UME-GME Transition.”  
33 (Directive to Take Action)
  - 34  
35 2. Encourage and support UME institutions’ investment in a) developing more valid, reliable,  
36 and unbiased summative assessments for clinical clerkships, including development of  
37 assessors’ awareness regarding structural inequities in education and wider society, and b)  
38 providing standardized and meaningful competency data to program directors. (New HOD  
39 Policy)
  - 40  
41 3. Encourage institutions to publish information related to clinical clerkship grading systems  
42 and residency match rates, with subset data for learners from varied groups, including  
43 those that have been historically underrepresented in medicine or may be affected by bias.  
44 (New HOD Policy)
  - 45  
46 4. Encourage UME institutions to include grading system methodology with grades shared  
47 with residency programs. (New HOD Policy)
  - 48  
49 5. Reaffirm the following policies:  
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51
    - [D-295.307](#), “Decreasing Bias in Evaluations of Medical Student Performance”

- 1 • [H-295.866](#), “Supporting Two-Interval Grading Systems for Medical Education”
- 2 • [D-295.317](#), “Competency Based Medical Education Across the Continuum of Education
- 3 and Practice”
- 4 • [D-295.318](#), “Competency-Based Portfolio Assessment of Medical Students”

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7 Fiscal note: \$1,000

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9 APPENDIX A: RELEVANT AMA POLICY

10  
11 Strategies for Enhancing Diversity in the Physician Workforce D-200.985

- 12 1. Our AMA, independently and in collaboration with other groups such as the Association of
- 13 American Medical Colleges (AAMC), will actively work and advocate for funding at the federal
- 14 and state levels and in the private sector to support the following: (a) Pipeline programs to prepare
- 15 and motivate members of underrepresented groups to enter medical school; (b) Diversity or
- 16 minority affairs offices at medical schools; (c) Financial aid programs for students from groups that
- 17 are underrepresented in medicine; and (d) Financial support programs to recruit and develop
- 18 faculty members from underrepresented groups.
- 19 2. Our AMA will work to obtain full restoration and protection of federal Title VII funding, and
- 20 similar state funding programs, for the Centers of Excellence Program, Health Careers Opportunity
- 21 Program, Area Health Education Centers, and other programs that support physician training,
- 22 recruitment, and retention in geographically-underserved areas.
- 23 3. Our AMA will take a leadership role in efforts to enhance diversity in the physician workforce,
- 24 including engaging in broad-based efforts that involve partners within and beyond the medical
- 25 profession and medical education community.
- 26 4. Our AMA will encourage the Liaison Committee on Medical Education to assure that medical
- 27 schools demonstrate compliance with its requirements for a diverse student body and faculty.
- 28 5. Our AMA will develop an internal education program for its members on the issues and
- 29 possibilities involved in creating a diverse physician population.
- 30 6. Our AMA will provide on-line educational materials for its membership that address diversity
- 31 issues in patient care including, but not limited to, culture, religion, race and ethnicity.
- 32 7. Our AMA will create and support programs that introduce elementary through high school
- 33 students, especially those from groups that are underrepresented in medicine (URM), to healthcare
- 34 careers.
- 35 8. Our AMA will create and support pipeline programs and encourage support services for URM
- 36 college students that will support them as they move through college, medical school and residency
- 37 programs.
- 38 9. Our AMA will recommend that medical school admissions committees and residency/fellowship
- 39 programs use holistic assessments of applicants that take into account the diversity of preparation
- 40 and the variety of talents that applicants bring to their education with the goal of improving health
- 41 care for all communities.
- 42 10. Our AMA will advocate for the tracking and reporting to interested stakeholders of
- 43 demographic information pertaining to URM status collected from Electronic Residency
- 44 Application Service (ERAS) applications through the National Resident Matching Program
- 45 (NRMP).
- 46 11. Our AMA will continue the research, advocacy, collaborative partnerships and other work that
- 47 was initiated by the Commission to End Health Care Disparities.
- 48 12. Our AMA opposes legislation that would undermine institutions' ability to properly employ
- 49 affirmative action to promote a diverse student population.
- 50 13. Our AMA will work with the AAMC and other stakeholders to create a question for the AAMC
- 51 electronic medical school application to identify previous pipeline program (also known as

1 pathway program) participation and create a plan to analyze the data in order to determine the  
2 effectiveness of pipeline programs.

3  
4 Mitigating Demographic and Socioeconomic Inequities in the Residency and Fellowship Selection  
5 Process D-310.945

6 Our AMA will: 1. encourage medical schools, medical honor societies, and residency/fellowship  
7 programs to work toward ethical, equitable, and transparent recruiting processes, which are made  
8 available to all applicants.

9 2. advocate for residency and fellowship programs to avoid using objective criteria available in the  
10 Electronic Residency Application Service (ERAS) application process as the sole determinant for  
11 deciding which applicants to offer interviews.

12 3. advocate to remove membership in medical honor societies as a mandated field of entry on the  
13 Electronic Residency Application Service (ERAS)—thereby limiting its use as an automated  
14 screening mechanism—and encourage applicants to share this information within other aspects of  
15 the ERAS application.

16 4. advocate for and support innovation in the undergraduate medical education to graduate medical  
17 education transition, especially focusing on the efforts of the Accelerating Change in Medical  
18 Education initiative, to include pilot efforts to optimize the residency/fellowship application and  
19 matching process and encourage the study of the impact of using filters in the Electronic Residency  
20 Application Service (ERAS) by program directors on the diversity of entrants into residency.

21 5. encourage caution among medical schools and residency/fellowship programs when utilizing  
22 novel online assessments for sampling personal characteristics for the purpose of admissions or  
23 selection and monitor use and validity of these tools.

24  
25 Clinical Skills Assessment During Medical School D-295.988

26 1. Our AMA will encourage its representatives to the Liaison Committee on Medical Education  
27 (LCME) to ask the LCME to determine and disseminate to medical schools a description of what  
28 constitutes appropriate compliance with the accreditation standard that schools should "develop a  
29 system of assessment" to assure that students have acquired and can demonstrate core clinical  
30 skills.

31 2. Our AMA will work with the Federation of State Medical Boards, National Board of Medical  
32 Examiners, state medical societies, state medical boards, and other key stakeholders to pursue the  
33 transition from and replacement for the current United States Medical Licensing Examination  
34 (USMLE) Step 2 Clinical Skills (CS) examination and the Comprehensive Osteopathic Medical  
35 Licensing Examination (COMLEX) Level 2-Performance Examination (PE) with a requirement to  
36 pass a Liaison Committee on Medical Education-accredited or Commission on Osteopathic College  
37 Accreditation-accredited medical school-administered, clinical skills examination.

38 3. Our AMA will work to: (a) ensure rapid yet carefully considered changes to the current  
39 examination process to reduce costs, including travel expenses, as well as time away from  
40 educational pursuits, through immediate steps by the Federation of State Medical Boards and  
41 National Board of Medical Examiners; (b) encourage a significant and expeditious increase in the  
42 number of available testing sites; (c) allow international students and graduates to take the same  
43 examination at any available testing site; (d) engage in a transparent evaluation of basing this  
44 examination within our nation's medical schools, rather than administered by an external  
45 organization; and (e) include active participation by faculty leaders and assessment experts from  
46 U.S. medical schools, as they work to develop new and improved methods of assessing medical  
47 student competence for advancement into residency.

48 4. Our AMA is committed to assuring that all medical school graduates entering graduate medical  
49 education programs have demonstrated competence in clinical skills.

- 1 5. Our AMA will continue to work with appropriate stakeholders to assure the processes for  
2 assessing clinical skills are evidence-based and most efficiently use the time and financial  
3 resources of those being assessed.
- 4 6. Our AMA encourages development of a post-examination feedback system for all USMLE test-  
5 takers that would: (a) identify areas of satisfactory or better performance; (b) identify areas of  
6 suboptimal performance; and (c) give students who fail the exam insight into the areas of  
7 unsatisfactory performance on the examination.
- 8 7. Our AMA, through the Council on Medical Education, will continue to monitor relevant data  
9 and engage with stakeholders as necessary should updates to this policy become necessary.

10  
11 Competency Based Medical Education Across the Continuum of Education and Practice D-  
12 295.317

- 13 1. Our AMA Council on Medical Education will continue to study and identify challenges and  
14 opportunities and critical stakeholders in achieving a competency-based curriculum across the  
15 medical education continuum and other health professions that provides significant value to those  
16 participating in these curricula and their patients.
- 17 2. Our AMA Council on Medical Education will work to establish a framework of consistent  
18 vocabulary and definitions across the continuum of health sciences education that will facilitate  
19 competency-based curriculum, andragogy and assessment implementation.
- 20 3. Our AMA will continue to explore, with the Accelerating Change in Medical Education  
21 initiative and with other stakeholder organizations, the implications of shifting from time-based to  
22 competency-based medical education on residents' compensation and lifetime earnings.

23  
24 Competency-Based Portfolio Assessment of Medical Students D-295.318

- 25 1. Our AMA will work with the Association of American Medical Colleges, the American  
26 Osteopathic Association and the Accreditation Council for Graduate Medical Education, and other  
27 organizations to examine new and emerging approaches to medical student evaluation, including  
28 competency-based portfolio assessment.
- 29 2. Our AMA will work with the NRMP, ACGME and the 11 schools in the AMA's Accelerating  
30 Change in Medical Education consortium to develop pilot projects to study the impact of  
31 competency-based frameworks on student graduation, the residency match process and off-cycle  
32 entry into residency programs.

33  
34 Continued Support for Diversity in Medical Education D-295.963

35 Our AMA will: (1) publicly state and reaffirm its stance on diversity in medical education; (2)  
36 request that the Liaison Committee on Medical Education regularly share statistics related to  
37 compliance with accreditation standards IS-16 and MS-8 with medical schools and with other  
38 stakeholder groups; (3) work with appropriate stakeholders to commission and enact the  
39 recommendations of a forward-looking, cross-continuum, external study of 21st century medical  
40 education focused on reimagining the future of health equity and racial justice in medical  
41 education, improving the diversity of the health workforce, and ameliorating inequitable outcomes  
42 among minoritized and marginalized patient populations; and (4) advocate for funding to support  
43 the creation and sustainability of Historically Black College and University (HBCU), Hispanic-  
44 Serving Institution (HSI), and Tribal College and University (TCU) affiliated medical schools and  
45 residency programs, with the goal of achieving a physician workforce that is proportional to the  
46 racial, ethnic, and gender composition of the United States population.

47  
48 Decreasing Bias in Evaluations of Medical Student Performance D-295.307

49 Our AMA will work with appropriate stakeholders to promote efforts to evaluate methods for  
50 decreasing the impact of bias in medical student performance evaluation as well as reducing the  
51 impact of bias in the review of disciplinary actions.

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Fostering Professionalism During Medical School and Residency Training D-295.983

(1) Our AMA, in consultation with other relevant medical organizations and associations, will work to develop a framework for fostering professionalism during medical school and residency training. This planning effort should include the following elements: (a) Synthesize existing goals and outcomes for professionalism into a practice-based educational framework, such as provided by the AMA's Principles of Medical Ethics.

(b) Examine and suggest revisions to the content of the medical curriculum, based on the desired goals and outcomes for teaching professionalism.

(c) Identify methods for teaching professionalism and those changes in the educational environment, including the use of role models and mentoring, which would support trainees' acquisition of professionalism.

(d) Create means to incorporate ongoing collection of feedback from trainees about factors that support and inhibit their development of professionalism.

(2) Our AMA, along with other interested groups, will continue to study the clinical training environment to identify the best methods and practices used by medical schools and residency programs to fostering the development of professionalism, to include an evaluation of professional behavior, carried out at regular intervals and employing methods shown to be valuable in adding to the information that can be obtained from observational reports. An ideal system would utilize multiple evaluation formats and would build upon educational experiences that are already in place. The results of such evaluations should be used both for timely feedback and appropriate interventions for medical students and resident physicians aimed at improving their performance and for summative decisions about progression in training.

Increase the Representation of Minority and Economically Disadvantaged Populations in the Medical Profession H-350.979

Our AMA supports increasing the representation of minorities in the physician population by: (1) Supporting efforts to increase the applicant pool of qualified minority students by: (a) Encouraging state and local governments to make quality elementary and secondary education opportunities available to all; (b) Urging medical schools to strengthen or initiate programs that offer special premedical and precollegiate experiences to underrepresented minority students; (c) urging medical schools and other health training institutions to develop new and innovative measures to recruit underrepresented minority students, and (d) Supporting legislation that provides targeted financial aid to financially disadvantaged students at both the collegiate and medical school levels.

(2) Encouraging all medical schools to reaffirm the goal of increasing representation of underrepresented minorities in their student bodies and faculties.

(3) Urging medical school admission committees to consider minority representation as one factor in reaching their decisions.

(4) Increasing the supply of minority health professionals.

(5) Continuing its efforts to increase the proportion of minorities in medical schools and medical school faculty.

(6) Facilitating communication between medical school admission committees and premedical counselors concerning the relative importance of requirements, including grade point average and Medical College Aptitude Test scores.

(7) Continuing to urge for state legislation that will provide funds for medical education both directly to medical schools and indirectly through financial support to students.

(8) Continuing to provide strong support for federal legislation that provides financial assistance for able students whose financial need is such that otherwise they would be unable to attend medical school.

- 1 Increasing Demographically Diverse Representation in Liaison Committee on Medical Education
- 2 Accredited Medical Schools D-295.322
- 3 Our AMA will continue to study medical school implementation of the Liaison Committee on
- 4 Medical Education (LCME) Standard IS-16 and share the results with appropriate accreditation
- 5 organizations and all state medical associations for action on demographic diversity.
- 6
- 7 Supporting Two-Interval Grading Systems for Medical Education H-295.866
- 8 Our AMA will work with stakeholders to encourage the establishment of a two-interval grading
- 9 system in medical colleges and universities in the United States for the non-clinical curriculum.
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