# The Variables That Lead to Severe Action Decisions by the Liaison Committee on Medical Education

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## Abstract

### Purpose
To identify the variables associated with severe action decisions (SADs) (unspecified accreditation term, warning status, probation status) by the Liaison Committee on Medical Education (LCME) regarding the accreditation status of established MD-granting medical education programs in the United States and Canada.

### Method
The authors reviewed all LCME decisions made on full survey reports between October 2004 and June 2012 to test whether SADs were associated with an insufficient response in the data collection instrument/self-study,

chronic noncompliance with one or more accreditation standards, noncompliance with specific standards, and noncompliance with a large number of standards.

### Results
The LCME issued 103 nonsevere action decisions and 40 SADs. SADs were significantly associated with an insufficient response in the data collection instrument/self-study (odds ratio [OR] = 7.30; 95% confidence interval [CI] = 2.38–22.46); chronic noncompliance with one or more standards (OR = 12.18; 95% CI = 1.91–77.55); noncompliance with standards related to the educational program for

the MD degree (ED): ED-8 (OR = 6.73; 95% CI = 2.32–19.47) and ED-33 (OR = 5.40; 95% CI = 1.98–14.76); and noncompliance with a large number of standards ($r_{pb}$ = 0.62; $P$ < .001).

### Conclusions
These findings provide insight into the LCME's pattern of decision making. Noncompliance with two standards was strongly associated with SADs: lack of evidence of comparability across instructional sites (ED-8) and the absence of strong central management of the curriculum (ED-33). These results can help medical school staff as they prepare for an LCME full survey visit.

The Liaison Committee on Medical Education (LCME) accredits MD-granting medical education programs in the United States and collaborates with the Committee on Accreditation of Canadian Medical Schools to accredit such programs in Canada. To maintain their accreditation status, established medical education programs typically undergo a full review (referred to as a full survey) of their compliance with each LCME accreditation standard every eight years. In preparing for this review, the program completes the data collection instrument (DCI) to document its compliance with each standard. Preparation for a full survey involves a self-study of compliance with LCME standards, which the program summarizes and submits with the DCI. The DCI and self-study document are

collectively referred to as the DCI/self-study. An LCME survey team reviews the DCI/self-study; conducts a several-day-long visit to the program under review; and then, following formal LCME guidelines,[1] writes a report detailing its review and findings. The LCME reviews this report, makes determinations regarding the program's compliance with LCME standards, and decides whether and under what conditions to continue the program's accreditation status.

Hunt et al[2] defined a severe action decision (SAD) as an LCME decision to grant an established medical education program an unspecified or shortened term of accreditation instead of the full eight-year term, place a program on warning status, place a program on probation status, or withdraw accreditation. In the same study,[2] the authors identified an increase in the number of SADs in the years immediately following the 2002 reformatting of the LCME standards from a prose format to a numbered format. Because of this increase, identifying the variables that make SADs more likely is particularly relevant. The

purpose of this study was to investigate which variables make SADs more likely by identifying patterns that resulted in SADs in the eight-year period from 2004 to 2012. Doing so allows us to better inform medical schools preparing for full survey visits. Compared with the research method used by Hunt et al,[2] we used more sophisticated statistical techniques, investigated LCME decisions in a larger and more recent range of years following the 2002 reformatting of the LCME standards, and analyzed factors contributing to SADs.

## Method

The LCME's determinations about a program's compliance with the standards and its decision about the program's accreditation status are conveyed to the program via an accreditation letter. One of the authors (M.M.) collected the data for this study from these accreditation letters. The Association of American Medical Colleges Human Subjects Protection Program deemed our study exempt from institutional review board review because we did not study human subjects or identify programs in any way.

We examined LCME accreditation decisions for all (n = 143) full survey reports of medical education programs in the United States and Canada that were reviewed by the LCME between October 2004 and June 2012. We included decisions for four programs that, because of the timing of their review cycle, had two full survey reports reviewed by the LCME during the study period. We considered these to be unique data points because the identified areas of noncompliance and accreditation decisions were different for each pair. We excluded decisions for three programs that were accredited for the first time during the study period because our intent was to generalize our findings to established medical education programs and the issues facing new programs differ from those of established programs. Therefore, the 143 full survey reports represent the entire population of full survey reports of established medical education programs reviewed by the LCME during the study period.

### Accreditation decisions

We divided accreditation decisions into two groups for the purposes of comparison: nonsevere action decisions (N-SADs) and SADs. N-SADs refer to full survey reports that did not receive a SAD. Because there were no decisions to withdraw accreditation during the study period and no decisions to shorten a program's accreditation term, SADs refer to one of the following three decisions, listed in order of increasing severity: (1) unspecified accreditation term, (2) warning status, or (3) probation status.

**Unspecified accreditation term.** This phrase refers to the LCME's decision to continue a program's accreditation without specifying an accreditation term (i.e., the academic year of the next full survey). The accreditation term is considered indeterminate pending the results of a subsequent, focused survey visit concentrating on previously cited areas of noncompliance.

**Warning status.** This phrase refers to the LCME's decision to confidentially notify a program that failure to resolve specific issues may lead to a decision to place the program on probation or to withdraw its accreditation. Prior to 2008, this status existed and was used but did not formally have the name "warning status." Instead, one of three equivalent actions

was taken: (1) An informal statement was added to the accreditation letter to the effect that probation had been considered by the LCME; (2) all of the following: (a) a continuation of the program's accreditation pending the results of a limited survey, (b) specification in the accreditation letter that this action was based on the long-standing nature of one or more areas of noncompliance, and (c) the decision to conduct a secretariat fact-finding visit to the medical program; and (3) a change following a probation reconsideration hearing in which the LCME removed probation status and required the program to prepare an action plan and undergo a limited survey visit. Having been originally subject to probation action, it would be clear to such a program that the LCME's concerns were significant enough to warrant probation if not corrected. In instances involving a reconsideration hearing, we used the list of areas of noncompliance decided upon at the reconsideration hearing. Some programs had their probation status removed following the reconsideration hearing during both time periods of the study (before and after the 2008 use of the term "warning").

**Probation status.** This phrase refers either to the LCME's decision to place a program on probation or the result of a program requesting a formal hearing for the reconsideration of the probation decision and the LCME affirming its original decision following the reconsideration hearing. According to the LCME Rules of Procedure,[3] the LCME places a program on probation if one or more areas of noncompliance have seriously compromised the quality of the medical education program or if the program has failed to make satisfactory progress in achieving compliance after having had ample opportunity to do so. Programs placed on probation retain their accreditation status with all of the rights and privileges conveyed by this status. However, the LCME is required by the U.S. Department of Education to make probation decisions public and to ensure that program leaders notify all enrolled students, accepted applicants, and other applicants of this status.

Although there are no fixed time limits for how long a program may continue with any one of these three SADs, the U.S. Department of Education requires LCME-accredited programs to correct

any area of noncompliance within two years of the program being notified of it.

### Explanatory variables

We based our hypotheses on the observations of the LCME secretariat staff (D.H., D.M.W., B.B.), who observe but do not vote on accreditation decisions. We hypothesized that four variables would relate to the accreditation decision for each medical education program: (1) an insufficient response in the DCI/self-study, (2) chronic noncompliance with one or more standards, (3) the specific standards or patterns of standards with which a program was noncompliant, and (4) the total number of standards with which a program was noncompliant.

**Insufficient response in the DCI/self-study.** Each full survey report contains a section regarding the LCME survey team's judgment of the quality and completeness of the DCI/self-study. As part of our study, two LCME staff members (D.H., D.M.W.) independently identified a medical education program as having an insufficient response when the survey team reported that there were internal inconsistencies/missing information and/or that the self-study document was primarily descriptive rather than evaluative. These two staff members were blinded to the program's name and survey team members' names. A third staff member (B.B.) reviewed the reports when the two staff members disagreed. We hypothesized that SADs would be more likely than N-SADs when a full survey report documented an insufficient response in the DCI/self-study.

**Chronic noncompliance with one or more standards.** We identified a program as being in chronic noncompliance if its accreditation letter specifically indicated that one or more areas of noncompliance were long-standing. This documentation was an indication of noncompliance with one or more standards in both the current and previous full survey. We hypothesized that SADs would be more likely than N-SADs to involve chronic noncompliance.

**Specific standards or patterns of standards with which a program was noncompliant.** At the time this research was conducted, the LCME standards[4] were divided into five categories: institutional setting, educational program for the MD degree (ED), medical students (MS), faculty, and educational

resources (ER). We reviewed the specific standards with which each program was noncompliant as identified in the accreditation letter. Our hypotheses were based both on the findings of Hunt et al[2]—that the number of recent citations of noncompliance with several ED and MS standards had increased—and on the observations of the secretariat staff regarding LCME decision making over several recent years. We hypothesized that SADs would be more likely than N-SADs when a program was noncompliant with ED standards, particularly those ED standards pertaining to curriculum management. We also hypothesized that SADs would be more likely when a program was noncompliant with the MS standards pertaining to the learning environment/student mistreatment and student services

issues, such as debt management, career counseling, and access to health services.

Please note that in the time since this research was conducted, the LCME has substantially revised its standards. Instead of 135 standards, the LCME now uses 12 high-level standards, each of which comprises a set of related elements that collectively constitute compliance with that standard. To make our research findings understandable and relevant in the context of the new format, we have provided the conversions from the standards used in this study to their corresponding accreditation elements in Chart 1.

**Total number of standards with which a program was noncompliant.** We hypothesized that SADs would be more

likely than N-SADs when a program was noncompliant with a relatively large number of standards.

### Statistical analyses

Analyses were performed using IBM SPSS Statistics 19 (SPSS Inc., Chicago, Illinois). We combined the three types of SADs into a single variable to achieve a sufficiently sized dependent variable. This enabled us to conduct correlations and binary logistic regression analyses. We used descriptive statistics to determine the difference between N-SADs and SADs in noncompliance with the LCME standards, sufficiency of the response in the DCI/self-study, and chronic noncompliance. We reviewed all standards with which each program was noncompliant in their respective LCME accreditation letters. We found a natural break at 20 noncompliance citations (i.e., there were 20 or more programs cited for each of these 20 standards), which allowed us to focus on the standards for which programs were most frequently cited. We calculated correlations using phi coefficients (the correlation coefficient used for binary variables) between SADs and a program's compliance with each of the 20 standards for which programs were most frequently cited (0 = compliance, 1 = noncompliance) to determine which standards could be entered into the regression equation. We also calculated correlations between SADs and our other explanatory variables (insufficient response [0 = sufficient response, 1 = insufficient response] and chronic noncompliance [0 = absence of chronic noncompliance, 1 = presence of chronic noncompliance]). We calculated a point biserial correlation between SADs and the total number of standards with which a program was noncompliant (total noncompliances variable) because, unlike all of the other binary explanatory variables, this variable was continuous. We also calculated correlations both among those standards for which programs were most frequently cited that were relatively highly correlated with SADs and among the other explanatory variables. We used binary logistic regression to fit a model and to calculate odds ratios (ORs) with 95% confidence intervals (CIs) to determine the association between SADs and those of our explanatory variables that were most highly correlated with SADs.

## Chart 1
**The Liaison Committee on Medical Education Accreditation Standards Referenced in This Study Mapped to the Current Accreditation Elements**

| Standard referenced in this study | Current accreditation element |
|---|---|
| IS-16 (diversity) | Element 3.3 (diversity/pipeline programs and partnerships) |
| ED-1 (educational program objectives) | Element 8.2 (use of medical educational program objectives) |
| ED-2 (required clinical experiences and monitoring) | Element 6.2 (required clinical experiences) and Element 8.6 (monitoring of completion of required clinical experiences) |
| ED-8 (comparability across instructional sites) | Element 8.7 (comparability of education/assessment) |
| ED-24 (resident preparation) | Element 9.1 (preparation of residents and nonfaculty instructors) |
| ED-25 (faculty appointments) | Element 9.2 (faculty appointments) |
| ED-30 (formative and summative assessment) | Element 9.8 (fair and timely summative assessment) |
| ED-31 (midcourse feedback) | Element 9.7 (formative assessment and feedback) |
| ED-32 (narrative feedback) | Element 9.5 (narrative assessment) |
| ED-33 (curriculum management) | Element 8.1 (curricular management) |
| ED-35 (systematic review and revision of the curriculum) | Element 8.3 (curricular design, review, revision/content monitoring) |
| ED-37 (monitoring curriculum content) | Element 8.3 (curricular design, review, revision/content monitoring) |
| MS-19 (career counseling) | Element 11.2 (career advising) |
| MS-24 (student educational debt) | Element 12.1 (financial aid/debt management counseling/student educational debt) |
| MS-27-A (health care providers' involvement in student assessment) | Element 12.5 (noninvolvement of providers of student health services in student assessment/location of student health records) |
| MS-32 (student mistreatment) | Element 3.6 (student mistreatment) |
| MS-37 (study and lounge space and secure storage) | Element 5.11 (study/lounge/storage space/call rooms) |
| ER-4 (sufficient buildings and equipment) | Element 5.4 (sufficiency of buildings and equipment) |
| ER-9 (affiliation agreements) | Element 1.4 (affiliation agreements) |

Abbreviations: IS indicates institutional setting; ED, educational program for the MD degree; MS, medical students; and ER, educational resources.

## Results

We found that 103 (72%) of the 143 full survey reports reviewed in the eight-year study period resulted in N-SADs, and 40 (28%) resulted in SADs. Of the 40 SADs, 10 (25%) were unspecified accreditation terms, 24 (60%) were warning statuses, and 6 (15%) were probation statuses. Table 1 displays the descriptive statistics on the number of LCME standards with which programs were cited for noncompliance. Because noncompliance citations for N-SADs were not normally distributed (i.e., Shapiro–Wilk test statistic was significant at $P < .03$), we used a nonparametric test to compare N-SADs and SADs on this variable and found that SADs had significantly more noncompliance citations than did N-SADs (Mann–Whitney $U$ test was significant at $P < .0001$).

Insufficient response in the DCI/self-study and chronic noncompliance occurred at a higher rate in SADs than in N-SADs, such that instances of insufficient response occurred in 16 (40%) SADs but only 14 (14%) N-SADs, and instances of chronic noncompliance occurred in 9 (23%) SADs but only 2 (2%) N-SADs.

Table 2 displays the correlations and corresponding $P$ values between SADs and our explanatory variables. Significant with $P$ values at or below the .001 level were the total number of noncompliance citations ($r_{pb} = 0.62$), insufficient response ($\varphi = 0.29$), chronic noncompliance ($\varphi = 0.35$), and noncompliance with the following standards: ED-1 pertaining to educational program objectives ($\varphi = 0.33$), ED-8 pertaining to comparability across instructional sites ($\varphi = 0.38$), ED-33 pertaining to curriculum management ($\varphi = 0.35$), ED-35 pertaining to systematic review and revision of the curriculum ($\varphi = 0.28$), and ED-37 pertaining to monitoring curriculum content ($\varphi = 0.40$).

Table 3 displays the correlations among the explanatory variables. We included noncompliance with standards whose correlation with SADs was significant at $P = .05$ because these were the variables sufficiently correlated with the SADs that they could be entered into the regression equation. The total noncompliances variable was relatively highly correlated ($P < .001$) with all of the other explanatory variables except insufficient response in the DCI/self-study:

## Table 1

**Descriptive Statistics on the Number of LCME Standards With Which Medical Education Programs Were Cited for Noncompliance[a] in Nonsevere Action Decisions (N-SADs) and Severe Action Decisions (SADs), 2004–2012**

| Item | N-SADs (n = 103) | SADs (n = 40) | All decisions (n = 143) |
|---|---|---|---|
| Mean (SD) | 5 (2.7) | 11 (3.6) | 7 (3.8) |
| Median (IQR) | 5 (4) | 10 (6) | 6 (5) |
| Mode[b] | 3 and 4 | 8, 10, and 15 | 4 |
| Min; max | 0; 14 | 4; 18 | 0; 18 |

Abbreviations: LCME indicates Liaison Committee on Medical Education; SD, standard deviation; IQR, interquartile range; Min, minimum; Max, maximum.
[a]The number of noncompliance citations for N-SADs and SADs differed significantly (Mann–Whitney $U$ test significant at $P < .0001$).
[b]N-SADs were bimodal and SADs trimodal.

## Table 2

**Correlations of Explanatory Variables With Severe Action Decisions by the Liaison Committee on Medical Education, 2004–2012**

| Variable | Description | Total no. (%)[a] | Correlation (P value)[b] |
|---|---|---|---|
| Insufficient response | Insufficient response in the data collection instrument/self-study | 30 (21) | 0.29 (< .001) |
| Chronic noncompliance | Chronic noncompliance with one or more accreditation standards | 11 (8) | 0.35 (< .001) |
| Total noncompliances[c] | Total number of standards with which a program was noncompliant | N/A | 0.62 (< .001) |
| ED-30 | Formative and summative assessment | 57 (40) | 0.16 (.05) |
| ED-2 | Required clinical experiences and monitoring | 56 (39) | 0.22 (.005) |
| ED-33 | Curriculum management | 45 (31) | 0.35 (< .001) |
| ER-9 | Affiliation agreements | 43 (30) | 0.20 (.02) |
| ED-8 | Comparability across instructional sites | 29 (20) | 0.38 (< .001) |
| ED-32 | Narrative feedback | 29 (20) | 0.11 (.18) |
| MS-24 | Student educational debt | 29 (20) | −0.04 (.61) |
| ED-35 | Systematic review and revision of the curriculum | 28 (20) | 0.28 (.001) |
| MS-19 | Career counseling | 28 (20) | 0.09 (.31) |
| ED-24 | Resident preparation | 27 (19) | 0.14 (.10) |
| ER-4 | Sufficient buildings and equipment | 27 (19) | 0.06 (.49) |
| IS-16 | Diversity | 26 (18) | 0.16 (.06) |
| ED-31 | Midcourse feedback | 26 (18) | 0.15 (.07) |
| ED-1 | Educational program objectives | 25 (17) | 0.33 (< .001) |
| MS-27-A | Health care providers' involvement in student assessment | 25 (17) | 0.16 (.05) |
| MS-32 | Student mistreatment | 25 (17) | 0.16 (.05) |
| ED-25 | Faculty appointments | 22 (15) | 0.12 (.14) |
| ED-37 | Monitoring curriculum content | 21 (15) | 0.40 (< .001) |
| MS-37 | Study and lounge space and secure storage | 21 (15) | 0.05 (.55) |
| FA-1[d] | Faculty diversity | 20 (14) | −0.12 (.16) |

Abbreviations: ED indicates educational program for the MD degree; MS, medical students; ER, educational resources; IS, institutional setting; FA, faculty.
[a]Refers to the total number and percentage of the 143 full survey reports included in the study that cite the variable.
[b]We calculated two-tailed correlations using phi coefficients for all but one pair of the variables because they were binary variables.
[c]We calculated the one-tailed correlation between total noncompliances and severe action decisions as a point biserial correlation because total noncompliances was a continuous variable that was being correlated with a binary variable.
[d]Standard FA-1 was replaced by IS-16 in July 2009.

## Table 3
**Correlations Among Explanatory Variables in a Study of Severe Action Decisions by the Liaison Committee on Medical Education, 2004–2012[a]**

| Variable | Correlation (P value)[b] | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IR | CH | TOTNON | ED-1 | ED-2 | ED-8 | ED-30 | ED-33 | ED-35 | ED-37 | MS-27-A | MS-32 | ER-9 |
| CH | 0.11 (.20) | | | | | | | | | | | | |
| TOTNON | 0.15 (.07) | 0.36 (< .001) | | | | | | | | | | | |
| ED-1 | 0.22 (.01) | 0.21 (.01) | 0.36 (< .001) | | | | | | | | | | |
| ED-2 | 0.15 (.08) | 0.20 (.02) | 0.40 (< .001) | 0.23 (.01) | | | | | | | | | |
| ED-8 | 0.00 (.97) | 0.12 (.17) | 0.48 (< .001) | 0.09 (.29) | 0.27 (.001) | | | | | | | | |
| ED-30 | 0.07 (.40) | 0.09 (.30) | 0.38 (< .001) | 0.04 (.64) | 0.25 (.002) | 0.16 (.06) | | | | | | | |
| ED-33 | −0.02 (.85) | 0.14 (.09) | 0.46 (< .001) | 0.28 (< .001) | 0.35 (< .001) | 0.22 (.01) | 0.16 (.06) | | | | | | |
| ED-35 | 0.14 (.11) | 0.12 (.15) | 0.45 (< .001) | 0.24 (.004) | 0.18 (.03) | 0.19 (.02) | 0.25 (.003) | 0.39 (< .001) | | | | | |
| ED-37 | 0.13 (.13) | 0.18 (.04) | 0.43 (< .001) | 0.38 (< .001) | 0.36 (< .001) | 0.28 (< .001) | 0.11 (.21) | 0.36 (< .001) | 0.34 (< .001) | | | | |
| MS-27-A | 0.03 (.69) | 0.07 (.38) | 0.29 (< .001) | 0.08 (.35) | −0.14 (.09) | 0.04 (.61) | 0.08 (.36) | 0.01 (.95) | 0.05 (.54) | 0.02 (.84) | | | |
| MS-32 | −0.01 (.90) | 0.07 (.38) | 0.32 (< .001) | 0.08 (.35) | 0.20 (.02) | 0.13 (.11) | 0.27 (.001) | 0.16 (.05) | 0.05 (.54) | 0.23 (.01) | 0.13 (.13) | | |
| ER-9 | −0.04 (.65) | 0.10 (.25) | 0.31 (< .001) | 0.22 (.01) | 0.01 (.95) | 0.12 (.14) | 0.00 (.96) | 0.08 (.34) | 0.14 (.10) | 0.12 (.17) | 0.26 (.002) | −0.10 (.23) | |

Abbreviations: IR indicates insufficient response in the data collection instrument/self-study; CH, chronic noncompliance with one or more accreditation standards; TOTNON, total noncompliances for a given program; ED, educational program for the MD degree; MS, medical students; ER, educational resources.
[a]Correlation coefficients are two tailed. All correlations are phi coefficients except for those involving total noncompliances, which are point biserial correlations because total noncompliances was a continuous variable.
[b]Each standard listed (i.e., ED, MS, ER) indicates noncompliance with that standard.

insufficient response ($r_{pb} = 0.15$; $P = .07$), chronic noncompliance ($r_{pb} = 0.36$), and noncompliance with the following standards: ED-1 ($r_{pb} = 0.36$), ED-2 ($r_{pb} = 0.40$), ED-8 ($r_{pb} = 0.48$), ED-30 ($r_{pb} = 0.38$), ED-33 ($r_{pb} = 0.46$), ED-35 ($r_{pb} = 0.45$), ED-37 ($r_{pb} = 0.43$), MS-27-A ($r_{pb} = 0.29$), MS-32 ($r_{pb} = 0.32$), and ER-9 ($r_{pb} = 0.31$). Also, noncompliance with ED-33 was relatively highly correlated ($P < .001$) with noncompliance with three other standards: ED-2 ($\varphi = 0.35$), ED-35 ($\varphi = 0.39$), and ED-37 ($\varphi = 0.36$). Finally, noncompliance with ED-37 was relatively highly correlated ($P < .001$) with noncompliance with four other standards: ED-1 ($\varphi = 0.38$), ED-2 ($\varphi = 0.36$), ED-8 ($\varphi = 0.28$), and ED-35 ($\varphi = 0.34$).

We conducted a binary logistic regression analysis with these explanatory variables, excluding the total noncompliances variable because of its significant and relatively high correlation with all but one of the other explanatory variables. By excluding this variable, we were able to see the contributions of the remaining explanatory variables, without the powerful effect of the total noncompliances variable. This analysis resulted in a significant ($P < .001$) regression model containing the remaining 12 explanatory variables. However, only 4 of these 12 variables were significant predictors of SADs.

We then conducted a second binary logistic regression analysis containing only the four explanatory variables found to be significant: insufficient response (OR = 7.30; 95% CI = 2.38–22.46), chronic noncompliance (OR = 12.18; 95% CI = 1.91–77.55), noncompliance with ED-8 (OR = 6.73; 95% CI = 2.32–19.47), and noncompliance with ED-33 (OR = 5.40; 95% CI = 1.98–14.76). This analysis yielded a significant ($P < .001$) regression with moderate fit (Nagelkerke $R^2 = 0.46$) and parameter estimates similar to those in the initial model. The number of each of the explanatory variables that were significantly associated with SADs in the regression model is presented in Table 4.

### Discussion

In this study, we found that SADs were associated with (1) the total number of areas of noncompliance with accreditation standards, (2) noncompliance with standards related to comparability of instructional sites and to curriculum management, (3) chronic or recurrent noncompliance with accreditation standards, and (4) an insufficient or unclear response to the information requested in the DCI/self-study.

## Table 4

**Number of Severe Action Decisions by the Liaison Committee on Medical Education Associated With Each Explanatory Variable, 2004–2012**

| Explanatory variable | No. (% of 40) |
| --- | --- |
| IR | 16 (40) |
| CH | 9 (23) |
| ED-8 | 18 (45) |
| ED-33 | 23 (58) |

Abbreviations: IR indicates insufficient response in the data collection instrument/self-study; CH, chronic noncompliance with one or more accreditation standards; ED, educational program for the MD degree.

Although highly correlated, the relationship between the total number of areas of noncompliance and SADs was not a perfect correlation. For example, one program with a SAD had only 4 areas of noncompliance, whereas another program with an N-SAD had 14 areas of noncompliance. This finding implies that in some circumstances noncompliance with certain standards is more likely to lead to a SAD.

Programs that received a SAD were more likely to be noncompliant with one or more standards in both the current and previous accreditation cycles. Again, the U.S. Department of Education regulations do not permit LCME-accredited programs to remain noncompliant with a standard for more than two consecutive years. Barring exceptional circumstances, a program must document evidence of having corrected its areas of noncompliance within that two-year period using status reports or the results of subsequent, focused survey visits concentrating on previously cited areas of noncompliance. Thus, a mention in an accreditation letter of chronic noncompliance results from either a reversion to noncompliance after a period of compliance or noncompliance resulting from problems in a different aspect of the same standard stemming from a subsequent full survey visit.

Recent increases in the class sizes of many medical education programs and the associated growth in the number of geographically dispersed instructional sites may explain why SADs were associated with noncompliance with the standard that requires a program to provide evidence that all students receive a comparable educational experience and are assessed comparably within a given discipline regardless of instructional site (ED-8). This finding also may relate to a program's inability to manage its curriculum.

As medical schools have been moving to more integration and coordination of the curriculum, a central authority to manage the program as a whole and to resolve problems that may cross courses or curriculum years has become more important. This change helps to explain why, as we hypothesized, we found that SADs were associated with noncompliance with the standard pertaining to curriculum management (ED-33), which requires that a medical education program's curriculum committee have the authority to manage the curriculum as a whole, including ensuring that content is linked to the educational program objectives across the entire program.

Contrary to what we hypothesized, noncompliance with the MS category standards pertaining to debt management, career counseling, and access to health services were represented about equally among full survey reports that resulted in N-SADs and those that resulted in SADs. At times, SADs resulted from noncompliance with standards in each of the five categories.

A strength of this study is that it included all established U.S. and Canadian medical education programs leading to an MD degree that had full survey reports reviewed by the LCME during the study period. A limitation is that it focused only on SADs resulting from LCME review of full survey reports; SADs sometimes result from the review of other types of reports (i.e., follow-up reports emanating from surveys concentrating on previously identified areas of noncompliance, surveys of new medical education programs, and status reports). Even with these other potential sources of SADs excluded from our analysis, a large percentage (28%) of the full survey reports reviewed by the LCME over an eight-year period resulted in a SAD. (Of note, a recent study[5] of LCME decisions in a larger and more recent selection of full survey reports found that 50 of 159 [31%] reports resulted in a SAD.)

## Conclusions

Our findings should be helpful to medical education program staff in the United States and Canada. They suggest that during DCI/self-study preparation, program staff need to be particularly thoughtful in their approach to their accreditation work and ensure that documents are clear, complete, and evaluative, and that those completing the DCI have a good understanding of the meaning and expectations of the LCME accreditation standards. By carefully reviewing documents, programs can avoid internal inconsistencies and ensure that the requested information and evidence are provided. Our findings highlight the need for strong central management of the curriculum (ED-33) rather than traditional discipline-based control of content and the need for comparability across instructional sites (ED-8). Taken together, these results can help medical school staff as they prepare for an LCME full survey visit and engage in ongoing quality improvement.

2014, Phoenix, Arizona), the Ottawa Conference (April 2014, Ottawa, Ontario, Canada), and the Association of American Medical Colleges annual meeting (November 2013, Philadelphia, Pennsylvania).

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