

Evaluation of a National Curriculum Reform Effort for the Medicine Core Clerkship

Robert S. Jablonover, MD, Dionne J. Blackman, MD, Eric B. Bass, MD, MPH,
Gail Morrison, MD, Allan H. Goroll, MD

BACKGROUND: In 1995, the Society of General Internal Medicine (SGIM) and the Clerkship Directors in Internal Medicine (CDIM) developed and disseminated a new model curriculum for the medicine core clerkship that was designed to enhance learning of generalist competencies and increase interest in general internal medicine.

OBJECTIVE: To evaluate the dissemination and use of the resulting *SGIM/CDIM Core Medicine Clerkship Curriculum Guide*.

DESIGN: Survey of internal medicine clerkship directors at the 125 medical schools in the United States.

MEASUREMENTS AND MAIN RESULTS: The questionnaire elicited information about the use and usefulness of the *Guide* and each of its components, barriers to effective use of the *Guide*, and outcomes associated with use of the *Guide*. Responses were received from 95 clerkship directors, representing 88 (70%) of the 125 medical schools. Eighty-seven (92%) of the 95 respondents were familiar with the *Guide*, and 80 respondents had used it. The 4 components used most frequently were the basic generalist competencies (used by 83% of those familiar with the *Guide*), learning objectives for these competencies (used by 83%), learning objectives for training problems (used by 70%), and specific training problems (used by 67%); 74% to 85% of those using these components found them moderately or very useful. The most frequently identified barriers to use of the *Guide* were insufficient faculty time, insufficient number of ambulatory care preceptors and training sites, and need for more faculty development. About 30% or more of those familiar with the *Guide* reported that use of the *Guide* was associated with improved ability to meet clerkship accreditation criteria, improved performance of students on the clerkship exam, and increased clerkship time devoted to ambulatory care.

CONCLUSION: This federally supported initiative that engaged the collaborative efforts of the SGIM and the CDIM was successful in facilitating significant changes in the medicine core clerkship across the United States.

Received from the Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, Md (RSJ, DJB, EBB); Department of Medicine, University of Pennsylvania School of Medicine, Philadelphia, Pa (GM), and Department of Medicine, Harvard University School of Medicine, Mass. General Hospital, Boston, Mass (AHG).

Presented at the Society of General Internal Medicine annual meeting, San Francisco, Calif, April 1999.

Address correspondence and reprint requests to Dr. Jablonover; Associate Residency Program Director, Internal Medicine, MCP Ambulatory Medicine Group, 3300 Henry Ave, Fourth Floor, Philadelphia, PA 19129-1191 (e-mail: Robert.S.Jablonover@drexel.edu).

KEY WORDS: Evaluation; medical education; curriculum reform; medicine core clerkship.

J GEN INTERN MED 2000;15:484-491.

The federal Health Resources and Services Administration (HRSA) contracted with the Society of General Internal Medicine (SGIM) and the Clerkship Directors in Internal Medicine (CDIM) "to develop and disseminate a new model curriculum for the core clerkship in internal medicine that would enhance the learning of generalist competencies and increase interest in a career in general internal medicine."¹⁻⁴ The resulting national collaborative effort produced a unique curricular resource package (mailed by CDIM in 1995 to all clerkship directors and now available at <http://www.sgim.org>) that formulated a consensus-driven, prioritized agenda with specific learning objectives for the mastery of basic generalist competencies.⁵ It also recommended shifting a third of the clerkship experience from an inpatient subspecialty focus to an ambulatory generalist one. The *SGIM/CDIM Core Medicine Clerkship Curriculum Guide* provided recommendations regarding educational strategies for ambulatory and inpatient clinical learning experiences, models for evaluating student performance, and suggestions regarding approaches to faculty development.

Because it is often difficult to change an existing curriculum,^{2,6-15} we were interested in studying the use of the *CDIM/SGIM Curriculum Guide*. To evaluate the dissemination and use of this curriculum reform model, we conducted a national survey of clerkship directors in internal medicine. The aims of this survey were to (1) determine strengths and weaknesses of the *Curriculum Guide* from the perspective of clerkship directors; (2) assess how each component of the *Curriculum Guide* has been used by clerkship directors; (3) identify barriers to implementation of the *Guide*'s recommendations; and (4) determine whether clerkship directors believe that use of the *Curriculum Guide* has been associated with any change in student performance during the clerkship, student evaluations of the clerkship, and student career choices.

METHODS

Subjects

The directors of the internal medicine core clerkship at each of the 125 medical schools in the United States were the subjects of this study. A mailing list of all CDIM members, which included the names of clerkship direc-

tors at both main institutions and affiliated sites, was obtained from the CDIM office in Washington, DC.

Survey Content

We developed a 3-part questionnaire. The first part sought information about the respondent's role in the administration of the medicine core clerkship, familiarity with the *Curriculum Guide*, and use of the *Guide*, including which form (written or electronic) was used. The second part asked respondents to indicate (1) strengths and weaknesses of the *Guide*; (2) components used and their degree of usefulness; (3) elements of the curriculum routinely covered in the respondent's medicine core clerkship; (4) use of the *Guide* in other rotations; (5) ways the *Guide*'s learning objectives have been used; (6) barriers to effective implementation of the *Guide*'s recommendations; and (7) impact of the *Guide* on student performance, time devoted to ambulatory care, student evaluations of the clerkship, student interest in pursuing a career in internal medicine, ability to meet accreditation criteria for the clerkship, and faculty preparation for and performance during the clerkship. We were interested in probing in a preliminary way if the *Guide* had any such impact in order to determine if further studies would be warranted. The third part elicited information about each respondent and characteristics of the clerkship for which he/she was responsible.

Survey Preparation and Administration

After pilot testing and revising the questionnaire with members of a core working group, the revised questionnaire was submitted to the members of the CDIM Survey Committee for review in order to ensure that it had face validity. The final questionnaire was mailed in April 1998 to each member on the CDIM mailing list along with a cover letter indicating the support of the CDIM for the survey. Reminder cards were sent to nonresponders 3 weeks later, and for those who did not respond, follow-up telephone calls and mail or facsimile transmission of the questionnaire were used to encourage full participation.

Data Analysis

Each completed questionnaire was entered into a database by one of two study investigators using Microsoft Excel for Windows. A double-entry process was used to ensure accuracy in data entry. Descriptive statistics, including the mean, mode, range, standard deviation, and/or frequency distribution, were used to summarize the responses to questions. Bivariate analyses were performed using Spearman rank correlation analyses and Kendall's τ to assess how the reported use and usefulness of specific components of the *Guide* related to independent variables such as respondent gender, academic rank, main area of clinical practice, the types of rotations offered by the re-

spondent's medical school, the percentage of clinical time that the clerkship director spent practicing outpatient medicine, years as clerkship director, length of the medicine core clerkship, and average percentage of time in the core clerkship spent by students in ambulatory care settings. The dependent variable in these bivariate analyses was the mean of each respondent's responses to eleven questions about the use and usefulness of curriculum components (one question for each component). The corresponding Cronbach's α for these items was 0.77. Statistical analyses were done with the Stata 5.0 statistical package.

RESULTS

Characteristics of Respondents

One hundred seventeen individuals completed the questionnaire. Of these 117 respondents, 95 individuals, representing 88 medical schools, identified themselves as clerkship directors at main institutional sites, with most controlling curriculum issues at all of the medicine clerkship sites associated with their medical schools. This represented responses from 88 of 125 medical schools for a medical school response rate of 70%. Demographic characteristics of respondents are noted in Table 1. All reported results are derived from the 95 respondents who direct main institutional sites (or the 87 of these who were familiar with the *Guide*).

Characteristics of Respondent's Medical Schools

The median length of the medicine core clerkship was 12 weeks (range 4–12 weeks). The median amount of time in the clerkship spent in ambulatory care settings was 30% (range 0–90%, mean 23%). Of note, 25 (49%) of the 51 respondents that did not have more than 33% or more time in ambulatory care had a separate required rotation in ambulatory care internal medicine. Medical school and clerkship characteristics are summarized in Table 1. The 37 medical schools that did not respond to the survey did not differ in many respects from those that did: they were not concentrated in one specific geographic region of the country; only 2 were among the 10 most research-intensive schools as ranked by funding from the National Institutes of Health¹⁶; their curriculum characteristics were very similar to those of responding schools¹⁷; the mean length of their core medicine clerkship was 10.8 weeks¹⁷; and 67% of them had a required ambulatory care rotation during the third and/or fourth year.¹⁷

Familiarity with and Use of the *Guide*

Seventy-one (75%) of the 95 respondents who identified themselves as clerkship directors at main institutional sites indicated that they were very familiar with the *Core Medicine Clerkship Curriculum Guide*, 16 (17%) were somewhat familiar with the *Guide*, and only 8 (8%) were

Table 1. Characteristics of Respondents and Respondents' Medical Schools (N = 95)

Respondents	
Mean number of years as clerkship director	6.4
Mean % clinical time spent practicing outpatient medicine	41
Curriculum control at all sites, (%)	79 (83)
Male, (%)	61 (64)
Area of practice, (%)	
General internal medicine	53 (56)
Medical subspecialty	34 (36)
General Internal Medicine/medical subspecialty	7 (7)
Other	1 (1)
Academic rank, (%)	
Instructor	3 (3)
Assistant Professor	25 (26)
Associate Professor	42 (44)
Full Professor	25 (26)
Respondents' Medical Schools	
Length of core medicine clerkship in wks Median (range)	12 (4–12)
% of time in core medicine clerkship spent in ambulatory care setting Median (range)	30 (0–90)
Required ambulatory care rotation (%)	45 (47)
Required clerkship in family medicine (%)	83 (87)
Required medicine subinternship (%)	49 (52)

not at all familiar with it. Of the 87 respondents who indicated familiarity with the *Guide*, 80 (92%) indicated they had used it. Of the 80 main clerkship directors who indicated they had used the *Guide*, 60 (75%) used the hard copy form, 1 (1%) used the online source, 7 (9%) used both, 9 (11%) used the hard copy and floppy disk source, 1 (1%) used all 3 sources, and 2 (3%) did not report.

Strengths and Weaknesses of the Curriculum Guide

The most frequently identified strengths of the *Curriculum Guide* were “identification and prioritization of general clinical core competencies” (by 82% of the 87 respondents who were familiar with the *Guide*), “specification of learning objectives (knowledge, skills, attitudes) for general clinical core competencies and training problems” (by 72% of these respondents), and “specification of training problems and learning experiences” (by 53% of these respondents). Other strengths included “flexibility of the *Guide* with the option to select from it as one sees fit” (51%), the *Guide*'s “approaches to and emphasis on ambulatory care training” (38%), “completeness of the *Guide*” (26%), and “suggestions for selecting appropriate clinical learning sites” (11%). The perceptions of the *Guide* as being the result of a national consensus and as promoting a uniform curriculum across the country were also noted as strengths.

The most frequently cited weaknesses of the *Guide* were that it was “too ambitious to carry out” (48%) and had “too much information to assimilate” (47%). Less than 16% cited the absence of important general clinical core competencies or critically important training problems as a weakness. A few core competencies cited as not needed included community health care (by 4 respondents), practice management (by 4 respondents), nutrition (by 3 respondents), and occupational health care (by 3 respondents).

Specific Uses of the Curriculum Guide

In a pattern similar to that for strengths of the *Guide*, and based on the number of respondents familiar with it, the components used most frequently and rated most useful (moderate to very useful) were (1) the basic generalist competencies, (2) the learning objectives for these competencies, (3) the learning objectives for training problems, and (4) the specific training problems (see Table 2).

No characteristics of respondents or clerkships were found to be significantly related to the reported use and usefulness of the *Guide* ($P > .05$). However, there was a suggestion of a mild inverse correlation between the reported use and usefulness of specific curricular components and the number of years as clerkship director that was not quite statistically significant (Spearman's $\rho -0.21$, $P = .06$). In addition, there was a suggestion of a mild positive correlation between the reported use and usefulness of specific curricular components and the length of the medicine core clerkship that also was not quite statistically significant (Spearman's $\rho .21$, $P = .06$).

The frequencies with which specific training problems were routinely covered in medicine core clerkships ranged from 93% for diabetes mellitus, 91% for chest pain, and 91% for congestive heart failure to 34% for depression, 38% for substance abuse, and 41% for smoking cessation.

Regarding use of the *Guide* in other rotations, 15% noted its use in an ambulatory care internal medicine rotation other than the core clerkship, 10% of respondents indicated that the *Guide* was being used in an internal medicine subinternship, and 2% of respondents indicated its use in a physical diagnosis course. One respondent also noted that it had been made available to other core clerkship directors as an example of how to develop objectives and training problems.

The reported uses of the *Guide*'s specific learning objectives for general clinical core competencies and training problems are listed in Table 3.

Barriers to Use of Guide

The most frequently cited barriers to implementation of the *Guide*'s recommendations were the inability of faculty to devote enough time to the clerkship, an insufficient number of ambulatory care preceptors, the need for more faculty development, and an insufficient number of

Table 2. Reported Use and Usefulness of Curriculum Components

Curriculum Component	% Using Component (N = 87)*	% Using Component Reporting It as Moderately or Very Useful†
Description of general clinical core competencies	83	85
Learning objectives for the general clinical core competencies	83	78
Specific training problems	67	76
Learning objectives for training problems	70	74
Suggestions for case selection	40	40
Precepting strategies	39	44
Suggestions on choice of instructional methods	37	22
Recommended evaluation strategies (e.g. faculty evaluation form, learning portfolio, personal learning plan)	36	29
Suggestions for selecting appropriate clinical learning sites	29	36
Suggestions for faculty development	26	22
Sample clerkship schedule	17	47

*N is the number of respondents familiar with the Guide.

† Calculated using (number reporting component as moderately or very useful)/(number using component).

sites for ambulatory care training (see Table 4). Only 8% of respondents indicated that there were no barriers.

Outcomes Associated with Use of the Curriculum Guide

Of the 87 respondents who were familiar with the Guide, 31% reported improvement in the performance of students on the end-of-clerkship exam, 28% noted improvement in the time devoted to ambulatory care during the core clerkship, 32% reported improvement in clinical performance of students, 33% noted improvement in student evaluation of the clerkship, 32% cited improvement in faculty preparation and 28% in faculty performance, and 20% reported improvement in student interest in pursuing a career in internal medicine (see Table 5).

Suggestions to Improve the Curriculum Guide

Approximately one third of respondents offered suggestions on how to improve the Curriculum Guide. A list of these suggestions is included in the Appendix.

DISCUSSION

This study suggests that a federally supported collaborative initiative facilitated significant changes in the traditional medicine core clerkship across the country, as indicated by the large number of clerkship directors that reported using major components of the Curriculum Guide in their clerkships.

Because the response rate for the main clerkship directors at medical schools was 70%, the survey results

Table 3. Use of the Guide's Specific Learning Objectives (N = 87)*

Reported Use	% Using
Orient medical students to the clerkship and its expectations	62
Guide changes in overall structure and content of the clerkship	60
Help design a lecture/lecture series	56
Help plan other specific teaching activities	53
Provide guidance to students for self-directed study	51
Guide faculty-directed discussion of cases	43
Orient faculty to the clerkship	43
Guide faculty evaluations of student clinical skills and knowledge	25
Guide development of a course exam	22
Guide selection of patients for students to see	16
Other uses	5
Create a block rotation in ambulatory internal medicine	
Select content for research into effectiveness of teaching methods	
Consolidate coverage of essential topics among core clerkships	
Help formulate objectives for ambulatory block for 3rd year students	

*N is the number of respondents familiar with the Guide.

Table 4. Barriers to Implementation of the *Guide's* Recommendations (N = 87)*

Barrier Cited	% Citing
Faculty unable to devote enough time to the clerkship	44
Insufficient number of ambulatory care preceptors	39
Need for more faculty development	39
Insufficient sites for ambulatory care training	33
Insufficient protected time for the clerkship director to run the clerkship	22
Insufficient budget for clerkship	14
Insufficient ancillary staff to assist clerkship director in running clerkship	13
Inadequate number or diversity of patients	10
Content and core competencies already covered in other parts of school curriculum	10
Distance to training sites	8
Lack of faculty acceptance at parent institution	7
Lack of faculty acceptance at affiliated site(s)	6
Medical school and/or department leadership resistant to change	6
Clerkship too short	5
Existing curriculum in place and working well	2
Faculty practice areas and schedules not oriented to accommodate teaching	1
Lack of rewards for teaching	1
Large number of faculty required to standardize teaching/learning sessions	1
Use of 5 different training sites makes standardization of curriculum difficult	1
Much of the <i>Guide's</i> content is covered in family medicine	1
No barriers	8

*N is the number of respondents familiar with the *Guide*.

should be representative of the views of internal medicine clerkship directors throughout the country. Furthermore, because 83% of the survey respondents control curriculum issues at all medicine clerkship sites associated with their medical schools, these results should be good indicators of the use of the *Curriculum Guide* at most of the training sites that are being used for the medicine core clerkship.

The 4 most highly rated curricular components—the prioritized core competencies, the learning objectives for the competencies, the specific training problems, and the learning objectives for the training problems—were incorporated by more than half of the responding clerkship directors familiar with the *Guide*. Furthermore, these elements were used by a substantial percentage of respondents in a number of different and often creative ways. Although only these 4 of 11 curricular components were

used by the majority (67% or more) of directors familiar with the *Guide*, and although at most 39% of the directors thought the curriculum had improved various aspects of their clerkships, these numbers are significant. Changing the established traditional medicine core clerkship can be difficult^{2,6-15}; therefore, the fact that this percentage is using at least one or more of these components is encouraging. In addition, the intent of the developers of the *Curriculum Guide* was not to have schools adopt the entire *Guide* but to adopt parts of it as they saw fit. Although the utilization of the *Guide* in assessing and revising evaluation strategies and in using its suggestions for faculty development was relatively low, these were not major focuses of the *Guide*.

There are several factors that probably contributed to use of the *Guide* and its specific components. Medical edu-

Table 5. Types of Changes Reported as Being Associated With Use of the *Guide* (N = 87)*

Area of Change	% Reporting Improved	% Reporting Worsened	% Reporting Unchanged
Ability to meet accreditation criteria for the clerkship	39	0	43
Performance of students on end-of-clerkship exam	31	0	53
Time devoted to ambulatory care during clerkship	28	0	61
Clinical performance of students during clerkship	32	0	54
Student evaluation of clerkship	33	0	53
Faculty preparation	32	1	56
Faculty performance	28	1	56
Student interest in pursuing a career in internal medicine	20	0	59

*N is the number of respondents familiar with the *Guide*.

cators recognize the need for taking an educationally sound approach to the clerkship but few have the time to put together an appropriate comprehensive list of learning objectives.¹ Also, few clerkship directors have had specific training in curriculum development skills,¹⁸ making it more difficult for them to put together all of the components of a clerkship curriculum. In addition, there is a need to document the curricula for training of medical students and residents because many medical schools and accreditation bodies now require such documentation.¹⁹

In our survey, the reported usefulness of specific components of the *Curriculum Guide* was weakly inversely correlated with the years of experience as the clerkship director and weakly positively correlated with the length of the clerkship. The former finding suggests that more experienced clerkship directors are somewhat less likely to value changes recommended by the *Guide*, but the weakness of the correlation indicates that even some highly experienced clerkship directors found components of the *Guide* very useful. The latter finding suggests that it may be somewhat easier to adopt changes when there is more time allocated to the clerkship.

The adoption of this curricular model by many clerkship directors reflects their agreement with the emphases on fundamental competencies, a finding consistent with the previously reported priorities of clerkship directors.²⁰ Their view was that exposure to and eventual mastery of basic generalist clinical competencies are essential to the practice of internal medicine and must be emphasized in the medicine core clerkship.

The two most commonly identified weaknesses of the *Guide* were "too much information to assimilate" and "too ambitious to carry out." The *Curriculum Guide* Working Group has addressed these concerns by developing a condensed pocket form of the *Guide*²¹ and emphasizing the use of the *Guide* as a resource rather than as a mandate. A minority of respondents identified topics missing from the list of training problems, many of which are relatively common outpatient disorders. The developers of the *Curriculum Guide* did not intend to create an exclusive list of training problems, but instead hoped that clerkship directors would use the templates that were created for the training problems to develop their own.^{1,5}

The most commonly cited barriers to implementation of the *Guide*'s recommendations were related to faculty, such as faculty development, protected time for teaching and administration, and recruitment of preceptors. Our results suggest that effective implementation of the curricular model at many institutions will depend upon addressing and overcoming these specific barriers and hopefully will stimulate medical educators at these institutions to redirect resources and devise creative solutions to these problems. Given the current financial and educational time constraints faced by most academic centers today, we realize overcoming these barriers will not be easy to achieve.²² Nevertheless, several strategies have been iden-

tified that can be used to address these barriers, including reallocation of time and resources, and faculty recognition and development.^{2,5,18,23-30}

Approximately 20% of respondents used a computerized form of the *Guide*, either floppy disk or online (available at <http://www.sгим.org>). This finding should provide impetus for SGIM and CDIM to promote access to the *Guide* on the Internet, facilitating dissemination, feedback from users, and production of future updates. The *Guide* was updated and revised at the request of HRSA approximately 1½ years ago.^{5,31} Currently a process is not in place for making periodic revisions; however, the project coordinators hope to reassemble the core working group in several years to again revise and update the *Guide* and to continue the collaboration between SGIM, CDIM, and HRSA.

Measures of the impact of the curriculum model and *Guide* are limited, as they are based on the subjective self-reports of respondents and as they took place only a short time after implementation. Although many respondents gave similar responses concerning impact of the *Guide*, we were reassured that many did not give the same responses across all 8 items. Of the 3 areas of impact considered in the survey—change in student performance during the clerkship, student evaluations of the clerkship, and student career choices—only "student evaluations of the clerkship" seems particularly amenable to investigation with our methodology, and then only if clerkship directors considered students' references to specific aspects of the clerkship that might reflect the influence of the *Guide*. Many factors outside the clerkship can influence a medical student's career choice,^{32,33} and factors not intrinsic to the clerkship can affect student exam and clinical performance. More formal studies using validated objective outcome measures are needed to help determine more precisely the impact of the *Guide*.^{5,34} Nonetheless, these preliminary data suggest the *Guide* may be starting to make an impact.

Information on the names of respondents was not collected. Therefore, we were unable to determine which respondents are members of SGIM. However, all clerkship directors are CDIM members and so were exposed to the *Guide* through CDIM channels.

The results of our study suggest that, through CDIM and SGIM, this curricular initiative was adopted by the majority of clerkships across the country and is highly regarded. They also suggest that it is helping medical schools throughout the country to update and strengthen the medicine core clerkship and students' preparation for the rapidly changing practice of medicine. This should help strengthen the role of the medicine core clerkship as one of the intellectual and experiential highlights of medical school.

The authors thank the Society of General Internal Medicine for its support of this project, the Clerkship Directors in Internal Medicine for its support and its assistance in funding for print-

ing and mailing the survey, and Michael Weiner, MD, MPH for his assistance in data analysis.

This work was supported in part by Contract No. 240-93-0029 from the Bureau of Health Professions, Health Resources and Services Administration.

REFERENCES

- Goroll AH, Morrison G, Bass EB, et al. SGIM/CDIM Core Medicine Clerkship Curriculum Guide. Washington, DC: Health Resources and Services Administration; 1995.
- Colwill JM, Perkoff GT, Blake RL, Paden C, Beachler M. Modifying the culture of medical education: the first three years of the RWJ Generalist Physician Initiative. *Acad Med.* 1997;72:745-53.
- Babbott D, Levey GS, Weaver SO, Killian CD. Medical student attitudes about internal medicine: a study of U.S. medical school seniors in 1988. *Ann Intern Med.* 1991;114:16-22.
- Deutsch SL, Noble J, eds. Community-Based Teaching: A Guide to Developing Education Programs for Medical Students and Residents in the Practitioner's Office. Philadelphia, Pa: American College of Physicians; 1997.
- Goroll AH, Morrison G, Bass EB, et al. Reforming the core clerkship in internal medicine: the SGIM/CDIM project. (manuscript provisionally accepted for publication in the *Ann Intern Med.*)
- Mennin SP, Krackov SK. Reflections on relevance, resistance, and reform in medical education. *Acad Med.* 1998;73(suppl):S60-4.
- Dannefer EF, Johnston MA, Krackov SK. Communication and the process of educational change. *Acad Med.* 1998;73(suppl):S16-23.
- Kaufman A. Leadership and governance. *Acad Med.* 1998;73(suppl):S11-5.
- Lindberg MA. The process of change: stories of the journey. *Acad Med.* 1998;73(suppl):S4-10.
- Watson RT, Suter E, Romrell LJ, et al. Moving a graveyard: how one school prepared the way for continuous curriculum renewal. *Acad Med.* 1998;73:948-55.
- Meyer GS, Potter A, Gary N. A national survey to define a new core curriculum to prepare physicians for managed care practice. *Acad Med.* 1997;72:669-76.
- Slavin SJ, Wilkes MS, Usatine R. Doctoring III: innovations in education in the clinical years. *Acad Med.* 1995;70:1091-5.
- Hendricson WD, Payer AF, Rogers LP, Markus JF. The medical school curriculum committee revisited. *Acad Med.* 1993;68:183-9.
- Ende J, Kelley M, Sox H. The Federated Council of Internal Medicine's resource guide for residency education: an instrument for curricular change. *Ann Intern Med.* 1997;127:454-7.
- Ende J, Kelley M, Ramsey PG, Sox H, et al. Graduate Education in Internal Medicine. A Resource Guide to Curriculum Development. The Report of the Federated Council for Internal Medicine Task Force on the Internal Medicine Residency Curriculum. Philadelphia, Pa: FCIM; 1997.
- Moy E, Griner PF, Challoner DR, Perry DR. Distribution of research awards from the National Institutes of Health among medical schools. *N Engl J Med.* 2000;342:250-5.
- Varner KS, Bennett CT, Salas AA. Curriculum Directory 1997-1998. Washington, DC: Association of American Medical Colleges; 1997.
- Kern DE, Thomas PA, Howard DM, Bass EB. Curriculum Development for Medical Education: A Six-Step Approach. Baltimore, Md: The Johns Hopkins University Press; 1998.
- Kassebaum DG, Cutler ER, Eaglen RH. The influence of accreditation on educational change in U.S. medical schools. *Acad Med.* 1997;72:1127-33.
- Bass EB, Fortin AH IV, Morrison G, et al. National survey of clerkship directors in internal medicine on the competencies that should be addressed in the medicine core clerkship. *Am J Med.* 1997;102:564-71.
- Goroll AH, Morrison G. SGIM/CDIM Core Medicine Clerkship Curriculum Guide Pocket Guide Version I. Washington DC: Health Resources and Services Administration; 1998.
- Swanson AG, Anderson MB. Educating medical students. Assessing change in medical education—the road to implementation (ACME-TRI Report). *Acad Med.* 1993;68(suppl):S1-46.
- Beasley BW, Wright SM, Francesco J, Babbott SF, Thomas PA, Bass EB. Promotion criteria for clinician-educators in the United States and Canada. *JAMA.* 1997;278:723-8.
- Skeff KM, Stratos GA, Bergen MR, Albright CL. The Stanford Faculty Development Program: a dissemination approach to faculty development for medical teachers. *Teaching and Learning in Medicine.* 1992;4:180-7.
- Skeff KM, Stratos GA, Berman J, Bergen MR. Improving clinical teaching. Evaluation of a national dissemination program. *Arch Intern Med.* 1992;152:1156-61.
- Lemon M, Greer T, Siegel B. Implementation issues in generalist education. *J Gen Intern Med.* 1994;9(suppl 1):S98-104.
- Skeff KM, Stratos GA, Mygdal W, et al. Faculty development. A resource for clinical teachers. *J Gen Intern Med.* 1997;12(suppl 2):S56-63.
- Boex JR, Blacklow R, Boll A, et al. Understanding the costs of ambulatory care training. *Acad Med.* 1998;73:943-7.
- Cohen JJ. The Generalist Physician Taskforce. AAMC policy on the generalist physician, as adopted October 8, 1992. *Acad Med.* 1993;68:1-5.
- Lubitz RM. Guidelines for promotion of clinician-educators. *J Gen Intern Med.* 1997;12(suppl 2):S71-8.
- Goroll AH, Morrison G, Bass EB, et al. SGIM/CDIM Core Medicine Clerkship Curriculum Guide. 2nd ed. Washington, DC: Health Resources and Services Administration; 1998.
- Federated Council for Internal Medicine. General internal medicine and general internists: recognizing a national need. *Ann Intern Med.* 1992;117:778.
- Schwartz MD, Linzer M, Babbott D, Divine GW, Broadhead E, et al. Medical student interest in internal medicine. Initial report of the Society of General Internal Medicine Interest Group Survey on Factors Influencing Career Choice in Internal Medicine. *Ann Intern Med.* 1991;114:6-15.
- Bordage G, Burack JH, Irby DM, Stritter FT. Education in ambulatory settings: developing valid measures of educational outcomes, and other research priorities. *Acad Med.* 1998;73:743-50.

APPENDIX

List of Suggestions for Improving the Guide

The number in parentheses refers to the number of clerkship directors from main and affiliated sites who made the same or a similar suggestion.

- ◆ Make it more concise. (16)
- ◆ Provide more resources on weblink to support training problems and competencies. (3)
- ◆ Provide sample cases. (3)
- ◆ List supplemental reading material/learning resources to complement core content. (3)
- ◆ Separate curricular topics into ambulatory topics and inpatient subjects; if separation of ambulatory and inpatient medicine occurs at a lot of schools, strategies and sample schedules of curriculum for each separate clerkship would be useful. (2)
- ◆ Distribute to all CDIM members and not just university faculty. (1)
- ◆ Review periodically so the Guide can be updated on a regular basis. (1)
- ◆ Develop evaluation tools specific to each core clinical competency or training problem. (1)
- ◆ Advertise its discrete uses. (1)
- ◆ Distinguish between basic and advanced levels of proficiency for the core clinical competencies. (1)
- ◆ Resist temptation to add to the Guide aspects of learning that would best be relocated to residency. Stick to mastery of the basics of the history and physical, diagnostic skills, and pathophysiology of disease. (1)

**JOURNAL OF GENERAL INTERNAL MEDICINE SUBSCRIBERS*****Do we have your new address?***

Send us your new address three months before it becomes effective, so we will have time to get it into our computer system and ensure that your copies of JGIM continue to arrive uninterrupted. Send your old mailing label, your new address with zip code, the effective date of your new address, and your current telephone number.

Nonmember subscribers notify:

Rochelle Belanger
Blackwell Science, Inc.
Commerce Place, 350 Main St.
Malden, MA 02148

SGIM members notify:

Katrese Phelps
Society of General Internal Medicine
2501 M Street, NW, Suite 575
Washington, DC 20037