

APM Perspectives

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AAIM Report on Master Teachers and Clinician Educators Part 3: Finances and Resourcing

Stephen A. Geraci, MD,^a Donna R. Devine, BS,^b Stewart F. Babbott, MD,^c Harry Hollander, MD,^d Raquel Buranosky, MD,^e Regina A. Kovach, MD,^f Lee Berkowitz, MD^g

^aDivision of Pulmonary, Critical Care and Sleep Medicine, Department of Medicine, University of Mississippi School of Medicine, Jackson; ^bDepartment of Medicine, University of Washington, Seattle; ^cDivision of General and Geriatric Medicine, Department of Medicine, University of Kansas School of Medicine, Kansas City; ^dDivision of Infectious Diseases, Department of Medicine, University of California, San Francisco; ^eDivision of General Internal Medicine, Department of Medicine, University of Pittsburgh, Pa; ^fDivision of General Internal Medicine, Department of Medicine, Southern Illinois University School of Medicine, Springfield; ^gDepartment of Medicine, University of North Carolina at Chapel Hill.

The Alliance for Academic Internal Medicine (AAIM) is composed of key internal medicine-based professional bodies committed to the preservation, growth, and refinement of the specialty. Member organizations include the Association of Professors of Medicine, the Association of Specialty Professors, the Association of Program Directors in Internal Medicine, Clerkship Directors in Internal Medicine, and Administrators of Internal Medicine.¹ A primary mission of AAIM is to foster change in medical education to best meet the needs of future practitioners, academicians, and leaders in internal medicine. To this end, AAIM in 2006 chartered the Education Redesign Task Force, composed of representatives of the member organizations and of the American College of Physicians and American Board of Internal Medicine, to address several topics critical to the mission of internal medicine education.² A sec-

ond task force was similarly chartered in 2008 and charged to examine and make recommendations on 3 additional issues: defining the essence of internal medicine; formulating a pathway toward competency-based medical education; and describing and examining issues related to clinical medical educators, specifically the master teacher (MT).

FINANCIAL SUPPORT FOR THE CLINICIAN EDUCATOR/MASTER TEACHER

Funding Sources

Support for clinician educator (CE) and future MT tracks will be derived from various sources, dependent upon specifics of the academic institution and types of activities in which individual faculty engage. Traditional sources include clinical professional and technical fee collections, hospital revenues, grants and contracts, philanthropy, and institutional funds. Medical schools may additionally have tuition, dean's office, including departmental funds (from taxes), and indirect and overhead charges from research, as potential sources. Unfortunately, as leaders often prioritize clinical and research missions higher than the educational mission at many academic health centers (AHCs),³ commitment, direction, and certainty of funds flow for their support are less established.

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Requests for reprints should be addressed to Stephen A. Geraci, MD, Division of Pulmonary, Critical Care and Sleep Medicine, University of Mississippi Medical Center, 2500 N. State St., Jackson, MS 39216.

E-mail address: stephengeraci@aol.com

According to Association of American Medical Colleges data, clinical revenue generated by medical school faculty and affiliated teaching hospitals has supported scholarly activities for more than 30 years.⁴ This source is particularly important today because professional fees alone cannot adequately support the cost of clinical care and teaching activities together. Hospitals receive both Medicare indirect and direct medical education funds and facility fee revenues that contribute to AHC financial margins. Hospitals acknowledge the benefit of strong clinical educational programs that attract top residents and fellows who both provide high-quality care and often remain on their staff after graduation.³ Master teachers will be among the best qualified physicians to support the hospital operating plan for patient satisfaction, safety, and quality metrics.⁵ Typically, many present-day CEs are recognized as outstanding clinicians to whom colleagues and hospital officials refer their family members for care.⁶ Master teachers will likely parallel CEs in this regard, but require more support—for additional personal training and to offset their somewhat smaller percentage of billable work.

In the last 10 years, one major threat to transferring funds from teaching hospitals to medical schools has been the Stark Law and anti-kickback statutes. Enacted in 1993, they have caused much confusion among AHCs about self-referrals, “kickback” principles, and various financial relationships among providers. Fortunately, exceptions permit AHCs to receive financial support legally from their teaching hospitals.⁷

General categories of funding sources for the MT/CE include clinical sources as well as grants and contracts.

Clinical Sources. Revenues from professional and technical/facility fees are typically the largest funding components for CEs, who often receive a set percentage of their collections, generally through a practice plan. With expected heavy clinical loads for MTs, these revenues will be a major component of future MT compensation.

In addition, the department or division may accrue additional funds to support salaries through:

- Taxes on clinical care collections generated by all faculty, advocating the position that educational costs are intrinsic to the business of the aggregate faculty and should be supported by all.

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- Master teachers will be career-dedicated clinician educators with enhanced skills in all areas of clinical medical education.
- Focused faculty development will be required throughout their careers, as well as innovative resourcing models to support them.
- Master teachers will be measured in part by redefined scholarship and tenure criteria to become full contributing members of medical school and academic medical center faculty.

- Directed support from the AHC or practice plan to weight clinical care in the teaching setting above standard collection rates or clinical relative value unit (RVU)-based rates, with the expectation that teaching and scholarship will add value to the overall services of the hospital or practice.
- An indirect medical education (IME) allocation for the number of residents and fellows in the department or division, including salary support to meet Residency Review Committee for Internal Medicine-required time-effort commitment for program directors and core faculty.
- Hospital contracts assigning specific administrative tasks necessary for hospital operations and accreditation (eg, directorships, quality and patient safety work groups, committee chairmanships).

Grants and Contracts. Although extramural grant and contract resources for medical education are neither as prevalent nor as well funded as for research, specific foundations and agencies support time-limited, directed grants for medical education projects and initiatives, usually through a competitive application process. Salary support is often included in these grants. Granting organizations include the Henry J. Kaiser Family Foundation, the Robert Wood Johnson Foundation, the Rockefeller Foundation, and some governmental agencies. A listing of funding sources prepared by Rush University Medical Center is available to the public.⁸

Education-directed intramural funding may also be available at some institutions. The Mayo Clinic Clinician-Educator Award provides 10% protected time and \$10,000 for expenses to support educational innovation and scholarship initiatives.⁹ Such programs require considerable institutional endowments, or governmental funds which may be in the form of unrestricted educational awards or “fenced” allocations supporting specific initiatives; educator salaries may be supported as part of these allocations.

Philanthropy. Donations may be sought from broad-based groups (eg, via a specific drive among local citizens), individuals, businesses, or foundations. Donors may want to support education focused upon certain disease entities or identified populations; general physician education; a specific initiative, such as ethics training; or support engagement in clinical scholarship, including biomedical research, health care policy, and epidemiology. Endowed chairs can be created and

named for an individual (eg, a particular donor/family) or narrow discipline (eg, ethics and humanity education) and once capitalized, can be an ongoing source of support for an appointed MT. Publicizing unique and successful programs is an essential step in marketing educational programs for investment. An example is the Center of Education at Beth Israel Deaconess Medical Center, which received a 10-year pledge from a major donor who was encouraged by the progress and future direction of the center.³

Institutional Sources. Institutional funds are most often allocated as tenure guarantees. Faculty members with these positions are usually physician-scientists or senior leaders (chair, division chief) and not clinician-educators. Present tenure guarantees rarely constitute a significant salary percentage for the busy clinician-educator. It is anticipated that tenure-guaranteed salary stipends will be an ever-shrinking percentage of all physician faculty salaries in the future, so their importance to future MT support is not predictable.

Time-Effort and Value Assessment: Compensation Models

Faculty Effort. To justify financial support for non-income-generating MT activities, it will be necessary to fully describe their time-effort and develop a method that consistently qualifies and quantifies educational and scholarly contributions. One study suggested the average CE work week is 58.7 hours, with only 7.6 hours (13%) devoted to scholarship—an amount viewed as wholly insufficient for “academic success” by the study subjects.¹⁰ Many CE activities contribute materially to the ongoing success of AHCs and medical schools; it is fully defensible to consider fair compensation for these activities, which may include:

- Administrative functions
 - Program director for residency/fellowship program
 - Associate program director
 - Clerkship director
 - Medical student course director
 - Medical director of training clinic
 - Medical director of inpatient teaching service
- Patient care in an educational environment
 - Clinic attending for residents/fellows
 - Inpatient attending
 - Clinical care for special populations
- All other educational and scholarly activity
 - Committees
 - Grand rounds, lectures, case discussions, morning report
 - Scholarly publications
 - Journal club

- Projects to meet regulatory and compliance requirements

Effort-based Compensation. Once the work products of MTs are defined, consistent value assessment—linkage of work products and their quality to salary dollars—is the final step in establishing a compensation model. Administration of the educational programs and its support could be assigned from the school, department/division, or hospital. Directors and associate directors of residency and fellowship programs must have paid protected time as mandated by the Residency Review Committee for Internal Medicine for continued training program accreditation.¹¹ Medical student teaching support may be appropriated as a dollar amount or full-time equivalent (FTE) fraction. Some departments have adopted an education value unit (EVU) or teaching value unit to associate an educational activity with a specific quantity of value to the institution, paralleling clinical RVUs.^{12,13}

The Table presents 3 models to support the clinical/scholarly effort of a CE and the calculations required to implement them. The first step establishes a defined amount of scholarly time as a necessary component of each primary activity. After the size of the effort is determined (assumed to be 20% in this example), scholarly time is next embedded into each effort. Thus, the 40% outpatient clinic time is increased by 20% to 48% (rounded to 50% time) for the purpose of financing this effort. The final step is to reduce total effort and compensation by the direct FTE support; this example includes 20% clinical administration and 10% medical student teaching. There are 3 options to support clinical/scholarly effort presented in the Table.

Defined Clinical FTE (CFTE): although many departments and hospitals have fully incorporated CFTE into present compensation plans, others are currently in the process of defining CFTE. This development is a challenge, as typical hospital goals are based on direct patient care, while department goals incorporate a multiplier for education and scholarship. Clinical teaching program costs are generally 30%-40% higher than similar nonteaching programs.¹⁴ Australian medical colleges agreed to a 30% FTE for clinical teaching and scholarship,¹⁵ while University of Washington assigns 20% time-effort as scholarship for the CE where teaching time is not defined.¹⁰ In this example, for a faculty member who is 63% CFTE, approximately 13% time is for teaching and scholarly activities and 50% for direct patient care. The clinical performance expectation (RVU target) is based on 50% effort, while the financial support from the hospital is 63%.

Clinical RVU: RVUs generated by CEs are easy to measure on the basis of professional fee billing, and most institutions track this information. With the agree-

Table Sample Calculation of Clinician Educator (CE) Compensation*

	Effort	Effort and Scholarly Time	Amount
Step 1: Convert effort to include scholarly time			
Medical director of outpatient clinic	20%	25%	\$ 37,500
Outpatient clinic with resident/fellow	40%	50%	\$ 75,000
Inpatient services on teaching unit	10%	13%	\$ 18,750
Introduction to Clinical Medicine (course)	10%	13%	\$ 18,750
Scholarly time	20%		
Total	100%	100%	\$ 150,000
Step 2: Reduce clinical/scholarly effort by direct FTE support			
Total CE effort and compensation		100%	\$ 150,000
Medical director of outpatient clinic		25%	\$ 37,500
Introduction to Clinical Medicine (course)		13%	\$ 18,750
Balance – Clinical/scholarly effort		63%	\$ 93,750
Options for support of clinical scholarly effort			
Option 1. CFTE			
Outpatient clinic with resident/fellow	40%	50%	\$ 75,000
Inpatient services on teaching unit	10%	13%	\$ 18,750
Total	50%	63%	\$ 93,750
Option 2. Clinical RVU			
Full-time RVU target = 2800			
50% RVU target = 1400	RVU	\$/RVU	Total
Rate of pay = \$68/RVU	1400	\$ 68.00	\$ 95,200
CE generates (50%): \$ 95,200			
Option 3. Clinical funds flow			
Clinical charges (1400 × \$80)		\$ 112,000	
Clinical revenue (1400 × \$55)		\$ 77,000	
Taxes (plan, 15%; dean, 10%; dept., 20%)		\$ 34,650	
Balance			\$ 42,350
CE clinical compensation			\$ 93,750
Hospital/dean pays balance			\$ (51,400)

CE = clinician educator; FTE = full-time equivalent; CFTE = clinical full-time equivalent; RVU = relative value unit. All these options include financial support to provide the CE with protected time for scholarly and educational activities. Options 1 and 3 cover the actual compensation cost, while Option 2 has some risk associated with it. It could result in overfunding or underfunding, depending on the number of RVUs generated compared with the target.

*Current compensation: \$150,000; Scholarly time factor: 20%.

ment to pay a set dollar amount per RVU, the RVU target for teaching clinics and inpatient services would be reduced to account for teaching efforts. This example for funding of 63% support uses 50% as the RVU target: if 2800 RVUs equal 100% effort, then the CE target would be 2800×0.50 , or 1400 RVUs. The discussions for the dollars per RVU will be at minimum based upon the compensation per RVU target (eg, $\$93,750/1400$, or \$67 per RVU).

Clinical Funds Flow: this method has an established clinical funds flow (cash, less practice-plan and clinical overhead expenses, dean's tax, departmental and divisional taxes, and associated faculty salary and benefit) that is projected to be a deficit, with the teaching hospital supporting the difference. The key principle of this method is similar to that of CFTE in that faculty salary and benefits include the FTE fraction dedicated to educational/scholarly activities.

Examples of Formal Financial Structuring of Medical Education Programs

A number of institutions have developed and implemented formal programs to support the educational time and effort of the CE/MT, following internal review of their educational program needs. Examples include the following:

University of Washington School of Medicine identified the need for increased emphasis on basic clinical skills and more personalized education for students and established a novel curricular structure. Their College System is composed of 6 colleges with 6 faculty members (primarily CEs) in each, one of whom is a college head. Each college faculty member, competitively selected for renewable 5-year terms, is responsible for mentoring approximately 6 students per medical school class. College faculty monitor students' academic progress, remediate as needed, and provide students

with career counseling and residency application guidance. The school financially supports 25%-75% of the time for 37 faculty members in the colleges, depending on the extent of the college member's role (regular faculty mentor, college head, and faculty mentor, or college director, college head, and faculty mentor).¹⁶ Future MTs will most likely be well represented among these positions.

University of Kansas School of Medicine's Department of Internal Medicine designed and implemented an EVU system based on the recommendations of the Association of American Medical College Mission-Based Management Program. Their system aligns educational activities with compensation and accountability. It recognizes and financially supports key administrative positions in medical education programs, and the system provides a dollar value for each 0.1 EVU for other faculty. This system is time-based, prospective, and compensates for bedside teaching, formal lectures, and program administration. Intended to encourage excellence in clinical teaching, EVU became an adjunct to the clinical RVU, supplementing CEs' patient care revenues.¹³

Harvard Medical School and Beth Israel Deaconess Medical Center (BIDMC): BIDMC developed a Center for Education and created the position of Vice President for Education/Faculty Associate Dean for Education, reporting to both the hospital and medical school. The Center for Education is funded by philanthropy, Harvard Medical School, and BIDMC. The medical center justifies this expense by linking the educational programs with the medical center's annual operating plan—specifically its patient safety initiatives. The formal structure has also increased philanthropic support for the educational program.³

Financial support for future MTs may include any of these sources or models. New systems and hybrid structures may well be developed as the value and potential of MTs become more obvious with growth in their numbers.

Conclusion

Parts 1 and 2 of this report addressed the need, skill set and training opportunities for master teachers. Part 3 has summarized financing sources and support models. Subsequent sections will address faculty role and schol-

arship, tracking tools and academic promotion and tenure.

This report was approved by the Chair of the Education Redesign Task Force 2 and the Executive Committee of the Alliance for Academic Internal medicine.

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