

# Understanding reimbursement for pharmacy residents

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In most hospitals in the United States, Medicare patients make up a substantial portion of the total number of patients treated. As a result, the Health Care Financing Administration (HCFA), which manages the Medicare program, reimburses for its share of certain expenses associated with the training and education of health care professionals. Medicare reimbursement must therefore be considered during cost-benefit analysis of any new or existing training and education programs. The complicated rules and regulations of Medicare reimbursement are particularly important to the justification and continual cost-benefit analysis of pharmacy residency programs.

**Background.** A general understanding of Medicare reimbursement of residency programs for health care professions might be useful during discussions with administrative and financial executives. Currently, the costs of pharmacy residency programs are reimbursable under different rules than those that apply to medicine, osteopathy, dentistry, and podiatry residency programs. In the past, however, reimbursement for pharmacy residency programs and for other approved programs (such as some nursing and radiology technician training programs) was more closely tied to the same rules that applied to medicine, osteopathy, dentistry, and podiatry. Making the distinction between the two sets of rules might be useful for educating executives and financial managers.

*Graduate medical education pass-through costs.* Direct costs of medical education (e.g., allocated overhead costs, salaries of interns and residents) are excluded from the Medicare definition of inpatient operating costs covered by the prospective pricing system (PPS). This means that the direct costs of approved medical education activities are not included in hospital-specific, regional, or national payment rates to hospitals under the PPS but continue to be reimbursed on the basis of reasonable costs.<sup>1</sup> These expenses are frequently referred to as graduate medical education (GME) costs and are sometimes called GME pass-through costs because they are not reimbursed on the basis of the PPS but, rather, pass through the PPS, thus avoiding the reimbursement limitations imposed by the PPS. To qualify for exclusion from the PPS, interns' and residents' services must satisfy the provisions of Section

1861(b)(6) of the Social Security Act.<sup>a</sup>

*Direct costs of medical education since 1985.* The Consolidated Omnibus Budget Reconciliation Act (COBRA) of 1985 changed the way HCFA pays for the direct costs of education for medical, osteopathic, dental, and podiatric interns and residents,<sup>2</sup> superseding a July 1985 regulation amendment that tied payments to Medicare use. In general, this change reduced the amount of reimbursement hospitals can receive for medical education. However, this change applied only to medical, osteopathic, dental, and podiatry internship and residency programs and not pharmacy residency programs and other "recognized professional and paramedical educational and training programs."<sup>2</sup> Pharmacy residency programs continue to be reimbursed by HCFA on the basis of the older rules for direct costs of medical education that were in place before 1985.

*Payment for medicine, osteopathy, dentistry, and podiatry residency programs.* Pursuant to COBRA, an average direct cost of medical education per resident was established on the basis of a hospital's fiscal year (FY) 1984 cost-reporting period. Each average amount has been updated each year according to rules in place at the time. Since FY 1986, increases have been required to equal the increase in the urban consumer price index.

A hospital's Medicare reimbursement for the direct costs of medical education is determined by multiplying the hospital's average direct cost of medical education per resident by the number of full-time-equivalent (FTE) residents and multiplying that product by the proportion of the total inpatient days used by Medicare patients. (HCFA will, however, continue to reimburse hospitals on a cost basis for the direct costs of education associated with nursing and allied health training activities, including pharmacy residency programs.) The Secretary of Health and Human Services is prohibited from limiting the allowable costs of these activities.<sup>3</sup>

COBRA also assigned weights for calculating the number of FTE residents in an approved residency program. Before July 1986, hospitals received 100% of their approved full-time resident amounts for each resident. After June 1986, hospitals received 100% of their approved FTE resident amounts for each year of a resident's training that is within the minimum num-

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ber of years of formal training necessary to satisfy the initial requirements for board-certification eligibility, plus one year, to a maximum of five years (the initial residency period). Since June 1987, for a resident who is not in the initial residency period, payment is made at only 50% of the otherwise recognized rate.

*Indirect costs of medical education for medicine, osteopathy, dentistry, and podiatry programs.* In addition to prospectively determined payments for inpatient hospital services, teaching hospitals under Medicare's PPS receive a payment for the indirect costs of medical education. This payment is designed to cover the increased operating, or patient care, costs associated with approved medical internship and residency programs. These increased costs may reflect factors such as an increase in the number of tests and procedures ordered by interns and residents relative to the number ordered by more experienced physicians and the need of teaching hospitals to maintain more detailed medical records. In establishing the additional payments for indirect costs of medical education, Congress emphasized that these expenses are not subject to the same standards of efficiency implied under the PPS but, rather, that they are legitimate expenses for the postgraduate medical education of physicians—expenses that the Medicare program has historically recognized as worthy of support under its reimbursement system.

Because the indirect costs of medical education are defined in terms of increased operating costs, they are not separately identifiable in a Medicare cost report or other financial or accounting records. Instead, these incremental costs have been statistically estimated as a function of teaching intensity. A proxy measure—the hospital's ratio of the number of interns and residents to the number of beds—has been used to measure teaching intensity. The coefficient describing this statistical relationship is expressed as a percentage and applied to the indirect medical education (IME) factor. This factor was first used to adjust the limits on routine operating costs and total operating costs under the system that reimbursed on the basis of reasonable costs.

The IME factor was initially set at 11.59% but was reduced by COBRA, in 1985, to 8.1%. The Omnibus Budget Reconciliation Act (OBRA) of 1987 further reduced the IME factor to about 7.7%. Since then, an increase in the IME factor to 8.1%, scheduled for 1995, has been rescinded by the OBRA of 1990. Accordingly, the IME factor is computed by the following equation:

$$1.89\{[1 + (\text{interns and residents}/\text{beds})]^{0.405} - 1\}$$

Pharmacy residents are not counted in calculations of a hospital's ratio of FTE residents to beds; doing so might be considered as double counting.

**Pass-through reimbursement of costs for pharmacy residencies.** Medicare reimbursement for accredited pharmacy residency programs is much more straightforward than reimbursement for medicine, osteopathy, dentistry, and podiatry programs. Nonetheless, as discovered by Cortese Anecchini and

Letendre,<sup>4</sup> preceptors for only 44% of pharmacy residency programs eligible for reimbursement sought pass-through funds. Accredited pharmacy residency programs are reimbursed as approved educational activities.

In general, approved educational activities that may continue to be reimbursed on a reasonable-cost basis include formally organized or planned programs of study operated by hospitals to enhance the institution's quality of care.<sup>5,6</sup> In addition to select programs offered to augment the overall training of medical interns and residents, approved programs may also include pharmacy residency programs, nursing programs, and medical education of paraprofessionals (e.g., radiology technicians).<sup>7</sup>

Costs of educational activities that are not considered approved educational activities are recognized as normal operating costs and are therefore subject to reimbursement under the PPS. Costs of programs such as part-time undergraduate and graduate education for employees, educational workshops for employees, maintenance of medical libraries, training for patients and patients' families, and on-the-job and inservice training are considered normal operating costs and do not qualify for pass-through reimbursement of medical education costs. Likewise, costs associated with the clinical training of students not enrolled in approved educational programs (e.g., summer internships for pharmacy students, clerkship training for B.S. or Pharm.D. students) are treated as normal operating costs subject to reimbursement under the PPS.

For most hospitals it is an advantage for pharmacy residents to be considered as recognized professionals rather than be classified with medical, osteopathic, dental, and podiatric interns and residents. A hospital's allowable cost may include its net cost of approved educational activities, subject to apportionment on the basis of Medicare use.<sup>8</sup>

Medicare recognizes that many health care providers engage in educational activities, including training programs for pharmacy residents. These programs contribute to the quality of patient care in an institution and are necessary for meeting the community's needs for medical and paramedical personnel. The federal government recognizes that the costs of such educational activities should be borne by the community. Many communities, however, have not assumed financial responsibility for these programs, making it necessary for the purchasers of health care to support educational activities. Until communities bear the costs, the Medicare program will continue to support these activities on its own terms. Although the intent of the Medicare-related payments is to share in the support of educational activities customarily or traditionally carried out by hospitals in conjunction with their operations, it is not HCFA's intent to pay any increased costs resulting from cost shifting or redistribution of costs from educational institutions to patient care institutions.<sup>9</sup>

**Table 1.**  
**University Teaching Hospital's Cost for a Pharmacy Residency Position Eligible for Medicare Reimbursement**

Cost or Reimbursement Item	Amount (\$)
Direct education costs	
Resident	
Salary and benefits <sup>a</sup>	39,000
Travel	1,200
Dues and subscriptions	200
Library photocopying service	100
Teaching time (directly related to teaching residents) <sup>a</sup>	
Director, 5% of workweek	6,500
Clinical specialist, 15% of workweek	13,650
Administrative time (directly related to residency program) <sup>b</sup>	
Director, 5% of workweek	6,500
Clinical specialist, 5% of workweek	4,550
Grant from university	(1,000)
Total direct education costs	70,700
Indirect education costs <sup>b</sup>	
Building and equipment depreciation, housekeeping, and administration (executive offices, finance, information services, purchasing, public relations)	21,210
Medicare reimbursement	
Total education costs × Medicare patient load	36,764

<sup>a</sup>Benefits are 30% of salaries.

<sup>b</sup>30% of direct education costs. This percentage is statistically derived by the Medicare step-down method for allocating cost.

The Medicare regulation on the cost of educational activities specifically identifies pharmacy residencies accredited by the American Society of Hospital Pharmacists (ASHP, now known as the American Society of Health-System Pharmacists) as approved programs for pass-through reimbursement of educational costs.<sup>10</sup> ASHP is the only organization designated by Medicare to approve pharmacy residency programs.

Net costs of approved educational activities are determined by deducting, from the total cost incurred by the hospital for these activities, any revenues the hospital receives from tuition. For this purpose, a hospital's total cost includes trainee stipends, compensation of preceptors, and other direct and indirect costs of the activities as determined under Medicare cost-finding principles.<sup>11</sup> The examples below are intended to provide a broad picture of how the director of a pharmacy residency program might estimate and justify the cost of the program.

*Example 1.* University Teaching Hospital (UTH) is a 593-bed facility with a pharmacy practice residency program accredited by ASHP. UTH routinely has had two pharmacy residents, but the director would like to increase the number of residents to three beginning in July 1998.

Medicare patients account for about 40% of UTH's total admissions and patient days. Each resident's salary or stipend is \$30,000 per year. The director's salary is \$100,000 per year. UTH has six clinical pharmacist specialists, each at a salary of \$70,000 per year. In

**Table 2.**  
**Integrated Health System's Community Hospital Cost for Four Pharmacy Residency Positions Eligible for Medicare Reimbursement**

Cost or Reimbursement Item	Amount (\$)
Direct education costs	
Residents (4)	
Salary and benefits <sup>a</sup>	163,200
Travel to ASHP Midyear Clinical Meeting (MCM)	4,000
Travel to regional residency conference	1,000
Teaching and administrative time <sup>a</sup>	
Director, 7.5% of workweek	9,000
Associate director, 10% of workweek	9,600
Clinical specialists, 80% of one specialist's workweek	67,200
Recruiting efforts	
Travel to ASHP MCM (2 preceptors)	2,400
Travel to regional residency conference (1 preceptor)	2,000
Accreditation fee	1,500
Total direct education costs	259,900
Medicare reimbursement	
Direct education costs × Medicare patient load	163,737
Indirect education costs <sup>b</sup> × Medicare patient load	49,121
Total Medicare reimbursement	212,858
Staffing contribution by residents	52,000

<sup>a</sup>Benefits are 20% of salaries.

<sup>b</sup>30% of direct education costs.

addition to salary, each of these people receives benefits equal to 30% of salary. At UTH, each resident takes up about six hours a week of one specialist's time in direct preceptor activities and about two hours a week of the program director's time. In addition, recruitment, planning, and general administration of the residency program requires about two hours a week of the director's and the program coordinator's time.

The direct costs to the hospital, minus a \$1,000 grant from the university, total \$70,700. With Medicare pass-through reimbursement, UTH would receive \$36,764 for each of the three pharmacy residents (Table 1).

*Example 2.* Community Hospital (CH) is a 711-bed hospital that is part of a large integrated health system. CH has several medical residency programs and a pharmacy practice residency program with four residents. The justification for the pharmacy residency positions has three components: Medicare pass-through reimbursement of direct costs, Medicare pass-through reimbursement of indirect costs, and other contributions by the residents.

The pharmacy director at CH is asked by his new boss to justify the residency program. Medicare revenue represents 63% of the total revenue at CH. The director's salary is \$100,000 a year, the associate director's salary is \$80,000 a year, and the clinical pharmacists' average salary is \$70,000 a year. The residents' salary is \$34,000 per year. The director spends an average of three hours a week, the associate director an

average of four hours a week, and each of four clinical specialists an average of eight hours a week working directly with the residents and the residency program. The residents contribute toward projects that improve the quality of care and decrease costs for CH. They help to provide services that might not otherwise be provided. In addition to these intangible benefits, each resident works one shift per week (on average) in a pharmacist position that would otherwise be filled by an employee pharmacist; this contribution by the four residents equals 0.8 of an FTE pharmacist. The annual salary of a pharmacist is \$65,000.

With Medicare pass-through reimbursement, CH would receive \$212,858 for the four pharmacy residents (Table 2). Staffing by the residents saves the department \$52,000. The total financial impact of the four pharmacy residents is \$264,858.

*Cost reports.* Every hospital that accepts Medicare patients for treatment has to perform a step-down allocation of its costs and periodically file Medicare cost reports with its Medicare intermediary. The finance division at large hospitals frequently employs Medicare-reimbursement specialists. Some hospitals have a reimbursement department in the finance division. Small hospitals, on the other hand, frequently contract with outside auditors for the preparation and

filing of Medicare cost reports.

Directors of pharmacy residency programs should be aware of their hospital's specific situation with regard to the preparation and filing of Medicare cost reports and advise the hospital's internal Medicare-reimbursement specialists or outside auditors of the costs and accreditation status of residency programs.

**Conclusion.** Reimbursement for costs of a pharmacy residency program should be sought from Medicare pass-through funds.

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<sup>a</sup>For the regulations applicable to direct medical education costs, see Reg. Sec. 412.113(b) at Section 4242 and Reg. Sec. 405.421.

## References

1. Social Security Act. Sec 1886(a)(4).
2. PL 99-272.
3. Social Security Act. Sec 1886(h).
4. Cortese Annecchini LM, Letendre DE. Funding of pharmacy residency programs—1996. *Am J Health-Syst Pharm.* 1998; 55:1618-9.
5. Reg. Sec. 405.421(b).
6. Preamble to interim final regulations. 48 F.R. 39752, 39762 (1983 Sep 1).
7. Reg. Sec. 405.421(e).
8. Reg. Sec. 413.85(a).
9. Reg. Sec. 413.85(c).
10. Reg. Sec. 413.85(e).
11. Reg. Sec. 413.85(g).