Comprehensive Health Care Economics Curriculum and Training in Radiology Residency

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Abstract

Purpose: To investigate the ability to successfully develop and institute a comprehensive health care economics skills curriculum in radiology residency training utilizing didactic lectures, case scenario exercises, and residency miniretreats.

Methods: A comprehensive health care economics skills curriculum was developed to significantly expand upon the basic ACGME radiology residency milestone System-Based Practice, SBP2: Health Care Economics requirements and include additional education in business and contract negotiation, radiology sales and marketing, and governmental and private payers' influence in the practice of radiology.

Results: A health care economics curriculum for radiology residents incorporating three phases of education was developed and implemented. Phase 1 of the curriculum constituted basic education through didactic lectures covering System-Based Practice, SBP2: Health Care Economics requirements. Phase 2 constituted further, more advanced didactic lectures on radiology sales and marketing techniques as well as government and private insurers' role in the business of radiology. Phase 3 applied knowledge attained from the initial two phases to real-life case scenario exercises and radiology department business miniretreats with the remainder of the radiology department.

Conclusion: A health care economics skills curriculum in radiology residency is attainable and essential in the education of future radiology residents in the ever-changing climate of health care economics. Institution of more comprehensive programs will likely maximize the long-term success of radiology as a specialty by identifying and educating future leaders in the field of radiology.

Key Words: Radiology residency curriculum, leadership development, ACGME, noninterpretive skills, health care economics

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INTRODUCTION

Radiology residency programs have typically concentrated the majority of efforts on clinical education. Health care economics skill development has traditionally assumed a secondary or peripheral role in radiology residency curricula [1-4]. The importance of health care economics skills development has been more recently identified as a critical element of residency training across all medical specialties, as outlined in the aims of the ACGME in the Next Accreditation System [1-4]. The Diagnostic Radiology Residency Milestone System-Based Practice, SBP2: Health Care Economics (SBP2) by the ACGME has further emphasized the requirement for health care economics skills development by including basic health care economic milestones for radiology residents (Fig. 1) [5-7]. However, these requirements are not necessarily comprehensive. More intensive didactic education and live training in the business and economics of radiology is likely necessary to adequately train future leaders in radiology.

METHODS

A three-phase health care economics skills radiology resident curriculum was developed at a radiology residency and was based upon the constructs of the ACGME Radiology Residency Milestone SBP2. Phase 1 consisted of didactic lectures fulfilling general knowledge base acquisition required by SBP2 (Table 1). This included

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Systems-based Practice

SBP2: Health care economics					
Has not Achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Describes the mechanisms for reimbursement, including types of payors	States relative cost of common procedures	Describes the technical and professional components of imaging costs	Describes measurements of productivity (e.g., RVUs)	Describes the radiology revenue cycle
☐	☐	☐	☐	☐	☐
Comments:					

Possible Methods of Assessment/Examples:

- End-of-Rotation Global Assessment
- Project presentation feedback (faculty, peers, others in system)
- Completion of knowledge-based modules

Suggested educational strategies:

- Annual QA session with head of billing
- Institute for Health Care International modules
- Agency for Healthcare Research and Quality modules

Fig 1. ACGME Radiology Residency System-Based Practice Milestone, SBP2: Health Care Economics (SBP2) [5,6].

education on the mechanism of reimbursement, types of payors, relative cost of radiology procedures, breakdown of technical and professional costs and charges, measurements of productivity, and the radiology revenue cycle. Phase 1 also covered basic radiology practice marketing and sales techniques, customer service initiatives in radiology, and techniques in maximizing the efficiency and profitability of a radiology practice.

Phase 2 consisted of didactic lectures that delved into the governmental influences in health care with specific lectures covering topics such as fee-for-service reimbursement, sustainable growth rate, the Medicare Access and Chip Reauthorization Act, Merit-Based Incentive Payment System, Alternative Payment Models, and coordinated high-quality care organizations, such as Accountable Care Organizations. Phase 2 also consisted of more advanced didactic lectures on radiology marketing and sales techniques and understanding of the business of running a radiology practice.

Phase 3 of the curriculum required the radiology resident to build on the general knowledge base of phases 1 and 2 through real-life scenario exercises. The exercises included mock radiology job interviews, mock radiology practice negotiations for hospital contracts, health plan contracts, equipment contracts, and mergers and acquisitions. Small teams of residents were given predetermined backstories

Table 1. Three-phase radiology resident health care economics skills curriculum

Curriculum Phases	Educational Topics
Phase 1	Basics of Radiology Reimbursement, Relative Cost, Billing, and the Revenue Cycle (didactic lecture, 1 hour) Introduction to Radiology Sales and Marketing (didactic lecture, 1 hour)
Phase 2	Understanding Governmental influences in Health Care—Fee-for-Service, Sustainable Growth Rate, the Medicare Access and Chip Reauthorization Act, Merit-Based Incentive Payment System, Alternative Payment Models, and Coordinated High Quality Care Organizations (didactic lecture, 1 hour) Advanced Radiology Marketing and Sales Techniques and Running a Successful Radiology Practice (didactic lecture, 1 hour)
Phase 3	Real-life case scenario exercises—mock radiology job interviews, radiology practice negotiations for hospital contracts, health plan contracts, equipment contracts, and mergers and acquisitions