ACR White Paper: New Practice Models—Hospital Employment of Radiologists: A Report From the ACR Future Trends Committee

Jonathan R. Medverd, MDa, Lawrence R. Muroff, MDb,c,d, Michael N. Brant-Zawadzki, MDe, Frank J. Lexa, MD, MBAf, David C. Levin, MDg

In response to the current era of rapid evolution of health care delivery and financing, radiologists are increasingly considering, as well as confronting, new practice models. Hospital employment is one such opportunity. Within this report to the ACR membership, the potential advantages and risks for radiologists considering hospital employment are examined.

Key Words: Hospital employment, radiology and radiologists, radiologist-hospital relationships, socioeconomic issues, new business models

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BACKGROUND

The current drive toward reform of health care delivery and financing in the United States has produced declining reimbursement for both specialty and imaging services, a renewed imperative for increased risk sharing, and mounting administrative burdens. Combined with swift advances in IT and networking, and the evolving dynamics of generational change, monumental shifts in the health care environment have been initiated.

Recognized as a vital service central to the delivery of efficient patient care, medical imaging is ensured a continued role into the future [1]. However, the future of traditional radiology practice models, and even radiologists themselves, is questioned. Individuals, practice groups, hospitals, and corporations are all responding dynamically to the evolving challenges of the marketplace. Many traditional local and regional radiology groups have maintained their independence by concentrating on the quality, availability, and speed of the services they can provide through investment in sustaining innovations, such as PACS and speech recognition dictation technology. Increasingly, others are venturing into new practice models that may eventually prove to be disruptive, including hospital employment, employment by national entrepreneurial radiology companies, merger activity to form geographically dispersed supergroups, buyouts of practices by large corporate entities, and the establishment of comanagement agreements. This movement is being driven by a pursuit of economies of scale in the current declining reimbursement environment and enabled by technologies allowing the efficient integration of previously decentralized health care elements.

Additionally, efforts to realign the value delivery equation within the prospect of a shift to capitated payment frameworks and, in some cases, the desire to influence government administering agencies and private payers also factor into the shift. As challenges confront ACR members, it is imperative for them to be aware of evolving practice model opportunities and the potential advantages and disadvantages of each to engage in informative consideration. Individual circumstances will be instrumental in the selection of a course of action in each situation. The ACR Commission on Economics has charged its Future Trends Committee to deliberate on these and other questions and provide guidance to the ACR membership. In this white paper, we examine the advantages and disadvantages of hospital employment of radiologists. Foundational work detailing recent financial and health care policy trends, the value added that radiologists can provide to the health care enterprise, as

1Department of Radiology, University of Washington, Seattle, Washington.  
2University of Florida College of Medicine, Gainesville, Florida.  
3University of South Florida College of Medicine, Tampa, Florida.  
4Imaging Consultants, Inc, Tampa, Florida.  
5Hoag Neurosciences Institute, Newport Beach, California.  
7Thomas Jefferson University Hospital, Philadelphia, Pennsylvania.

Corresponding author and reprints: Jonathan R. Medverd, MD, University of Washington, Department of Radiology, Box 358280, 1959 NE Pacific Street, Seattle, WA 98195; e-mail: jmed@uw.edu.
well as the priorities and needs of hospitals and methods by which radiologists can optimize mutual benefit in the service of those needs has been explored and published by recent ACR committees, task forces, and individual authors [2-6].

RECENT CARDIOLOGY EXPERIENCE
Historical experiences can provide context for understanding the outcomes that radiologists will likely experience in becoming hospital employees. In its 2010 practice census, the American College of Cardiology quantified active and recent hospital integration of its members in private group practice at nearly 40%, and another 13% of all cardiovascular practices were considering hospital integration or mergers within the following 5 years [7]. Reasons cited for change were multifactorial and familiar to radiologists. These included declining reimbursement and incomes, the increasing need to coordinate care and the location and delivery of care, increasingly sophisticated administrative needs, and escalating capital needs (eg, electronic health records). Combined with the hard calculus of reimbursement differentials for similar services provided under the Medicare Physician Fee Schedule compared with HOPPS, and the ability of hospitals to leverage their negotiation clout with commercial payers, hospitals could offer cardiologists a reported 10% to 40% compensation premium with their initial contracts. Interest in new practice opportunities was such that the American College of Cardiology produced an informative how-to primer for its membership in 2009 detailing activities of practice integration, management contracts, and hospital integration [8].

WILL RADIOLOGY FOLLOW?
At the simplest level, the essential force driving the shift of cardiologists into employment and other integration models is a fundamental increase in the risks of practice ownership. Only time will tell whether initial cardiologist satisfaction with recently minted arrangements will persist. Although radiologists certainly share a sense of increased risk for practice ownership today, there has not yet been mass movement of radiologists toward hospital employment and practice mergers. Hard data are lacking, but most observers of the national marketplace feel that radiology practices have, in general, tended to resist integration and merger activity in favor of maintaining independent contractor status. There have been several recent purchases or contract reassignments resulting in group absorption or displacement that have garnered considerable attention in news and trade journals [9]. Estimates of the size of the nonacademic hospital–employed radiologist workforce range between <10% (L. Muroff, personal communication, June 22, 2012) and as much as 20% (E. Bluth, personal communication, July 3, 2012). Furthermore, it is felt that this share has not changed substantially in recent years. Should radiology groups choose to pursue hospital employment options, it is questionable whether radiologists will be able to replicate the cardiologist integration experience. Cardiology comes from a tradition of close and valued relationships with their hospital partners, as well as a tradition of high-level involvement in positions of authority within hospital governance. Radiologists are not in the same position to refer patients to the hospital and in some locales neither command similar respect nor have pursued a tradition of leadership within hospital governance. However, in periods of change, opportunities to assume leadership roles can arise for those that are prepared. In many locales it is not too late to act.

As with cardiovascular imaging and procedures, some hospitals are now becoming interested in acquiring full control over the diagnostic imaging revenue streams within their purview. Multiple strategic and economic factors can be assigned to this trend. Among them is the perceived strategic need of hospital administrators to engineer their workforces to function efficiently as greater risk-sharing reimbursement models, such as bundled payment and patient-based frameworks (eg, accountable care organizations), gain market penetration. Unlike cardiology, however, the necessity of physician physical presence to perform radiologic services is not universally accepted as a requirement. Indeed, groups and corporations providing remote interpretation services aggressively promote a business model of predominantly offsite reading radiologists with or without the support of onsite radiologists and other personnel to perform procedures and maintain quality and safety oversight. Hiring by these entrepreneurial entities has provided an alternative source of employment for young radiologists in the recent tight radiology job market. Such hiring generally represents a “non–partnership-track” employment model that may be comparable with hospital employment from the perspective of employer–employee interactions, performance and salary determination, and benefits. An exploration of this business model will be the focus of a future white paper from this committee.

Under the appropriate circumstances, hospital employment may offer promising prospects for radiologists. The experimentation with hospital buyouts of physician practices in the 1990s has left hospitals wary of creating disincentives for radiologists, or any other employed physician for that matter, for productivity and quality. Correspondingly, radiologists understand that the diagnostic imaging business has unique attributes for success and that their expertise and experience can be vital to optimizing operations. Mutual understanding of these perspectives can facilitate the engagement of hospital employment negotiations as an exercise in alignment of goals and incentives to ensure mutually advantageous outcomes [2,10]. If not, the several potential advantages of hospital employment can sour to reveal corresponding
risks or disadvantageous characteristics. These considerations are summarized in Table 1 and are explored in the sections that follow. Note that for most potential advantages shown in the table, there can be a corresponding potential risk if cooperation and good faith fail to materialize among all parties. In some instances, a potential risk is shown that has no corresponding advantage, and vice versa.

**JOB SECURITY, STABILITY, AND SATISFACTION**

Employment by a well-managed hospital commanding a trusted and valued position within its community could offer radiologists the peace of mind that comes with a predictable paycheck, job security, and job stability. The likelihood of a hospital employer replacing its own group of employed radiologists with a teleradiology company can be relatively small, provided that the radiologists are empowered to provide the quality and services demanded within the competitive modern health care marketplace. Owner duties and angst regarding the solvency of privately owned imaging centers in a time of shrinking outpatient reimbursement would be a thing of the past. An indication that radiology practices and entrepreneurs have been partnering with or selling their outpatient centers to hospitals in recent years is provided by a recent trade journal report. It indicates that although the market for outpatient imaging centers in the United States is essentially flat, the number of these facilities either owned or affiliated with an integrated health care system has nearly doubled between 2005 and 2011 [11]. As employees, shared responsibility for the administration and growth of the hospital’s imaging business could provide a sense of contribution, purpose, and “ownership,” minimizing uncertainty within the work environment and strengthening radiologists’ job satisfaction. Roles and duties would be specified within the hospital employment contract. These arrangements could appropriately serve as an important vehicle for radiologist access to and participation on hospital governance and capital committees. In return, the hospital would expect and benefit from a loyal partner in the pursuit of cost-efficient, service-oriented, quality medical imaging, including supervision and education of ancillary staff members and the innate ability of radiologists to provide clinical decision support, patient triage, and overall management of systemic clinical and technological integration.

The negotiating strength of a radiology group entering a hospital employment contract will vary on the basis of local circumstances, personalities, and timing of events. Is employment perceived as a necessary haven from present adverse competitive influences or a preemptive stra-

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<th>Table 1. Potential advantages and risks (or drawbacks) of hospital employment for radiologists</th>
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<td><strong>Potential Advantages</strong></td>
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<tr>
<td>Job security and stability</td>
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<tr>
<td>- No worry about insolvency of privately owned imaging centers</td>
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<td>- Hospital unlikely to replace you with teleradiology company</td>
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<td>Predictable income</td>
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<td>Billing and collections performed by hospital</td>
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<td>Contract negotiations with payers performed by hospital</td>
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<td>- Hospital likely to have more clout</td>
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<td>Captive referral sources</td>
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<td>- Other employed physicians likely (or required) to refer</td>
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<td>Availability of infrastructure resources and support</td>
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<td>- Information technology (IT)</td>
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<td>- Business management teams</td>
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<td>- Malpractice insurance</td>
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<td>Better opportunity to participate in hospital governance if employed</td>
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<td>Better positioned for the era of accountable care organizations (ACOs) and bundled payments</td>
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<td>- Loss of autonomy</td>
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tic shift for the group? In either case, it will behoove hospitals and prospective radiologist employees to carefully address typical issues that have soured relationships between radiologists and the hospitals they serve under more traditional exclusivity (ie, “franchise”) contracts [12,13]. For example, is the hospital partner providing suitable investment in equipment, workflow tools, and personnel to maintain the quality and diversity of imaging services it desires? Is outpatient imaging controlled by the hospital entity, and if so, are the requirements of that business segment properly balanced with the demands of inpatient care? How are nonradiologist physicians granted privileges to perform traditionally core radiologic activities? For a hospital building a vertically integrated health care delivery model, employment of its physicians does simplify on paper the assignment of roles, duties, and remuneration but does not remove the human and professional elements from the equation.

Poor or incomplete alignment of mutual priorities could introduce adverse incentives for physicians into an integrated service model. In potential scenarios in which radiologists are excluded from meaningful participation in leadership duties within their specialty, they may develop a sense of disenfranchisement and feel trapped by overdependence on the single hospital entity for their prosperity. Particularly in such a scenario in which the hospital employer is unwilling or unable to maintain and grow its imaging services, radiologist job satisfaction would be predictably low, and relations and cooperation between the radiologists and their employer would likely be suboptimal. Corresponding hospital administrator frustration with a situation that “is not working” would predict attractive opportunities for national entrepreneurial radiology companies or similar entities to assume the responsibilities and financial risks of employing radiologists and providing imaging services.

Vertical integration of health care delivery holds the potential for realization of quality and cost efficiencies. Within scenarios in which radiologists serve as employees, they could largely be disencumbered from some marketing responsibilities. Provision of imaging services to the captive referral source of other hospital-employed primary care and specialty physicians can be less multifaceted than competing within the general marketplace, creating streamlined and satisfying opportunities to hone services, care pathways, and consultative relationships. Therefore, the traditional imperatives of clinical provider education and networking would be internalized and potentially simplified while business development marketing activities would be reduced. Such gratifying experiences would serve to benefit job satisfaction and provide impetus to maintain a “group” identity and cohesion within the hospital and perhaps avoid degradation of image to one of interchangeable employees. However, careful coordination of physician group incentives is required to achieve such potential positive outcomes. If the clinical activities of captive referral specialty physicians are not suitably managed, perverse incentives to abrogate a portion of their responsibilities onto radiology may arise. An example would be the substitution of radiologic services for curricular or absent physical examinations by providers who may get paid whether or not they do proper patient evaluations. This would create undesirable pressure on radiology to perform inappropriate imaging studies, leading as much to feelings of frustration and an erosion of job satisfaction as it may be counterproductive to the efficient delivery of health care services. Because medical imaging significantly affects the delivery of modern clinical care, active and meaningful participation by radiologists within the leadership structure of their hospital employers can likely immunize against such poor outcomes. The opportunity for radiologists to demonstrate added value (ie, cost savings, quality improvement) to the entire integrated delivery system would be easier. Participation within a hospital’s governance structure may be enhanced if radiologists are employed not just as “readers” but as managers of the clinical information workflow and technology.

**INCOME PREDICTABILITY?**

Salary compensation can provide the comfort of income predictability, at least in the short term. It is uncertain whether a group would fare better financially independent or as employees. Observers of the recent flight of cardiology to hospital employment are anxious to learn if eventual renewal contracts will maintain cardiologist compensation or herald a cycle of income being ratcheted down. Reimbursement policies of CMS and incentives introduced by the Patient Protection and Accountable Care Act of 2010 are pushing many specialty groups, not just cardiology, to be purchased by hospitals in return for the promise of efficiencies gained from vertical integration and improved coordination in the delivery of care. In this transformation of medicine from a fragmented variable cost “cottage industry” into a fixed higher cost, but vertically organized, big business, it is feared that physician salaries will be regarded as expensive and become an irresistible target for profit-seeking nonphysician managers to cut, particularly considering that the employed physicians will have compromised negotiating power once integrated into the hospital system [14].

Traditional fee-for-service reimbursement structure provides a basis for straightforward compensation strategies for radiologists and other medical specialties. The predominance of the fee-for-service reimbursement model today and the relative minority of radiologists in hospital employment provides a competitive force for hospital salaries to track the private practice market. If penetration of the hospital employment model were to increase, it would be expected that hospitals would have more freedom to establish salary levels independently [9].
Perhaps the largest question for radiologists with regard to their future compensation is whether a hospital system employment model can provide a buffer from the current environment of declining reimbursement and payment reform. Government and commercial payers have been introducing risk-sharing reimbursement strategies, including outcomes incentives (ie, “pay for performance”), episode-of-care bundling, and experimentation with accountable care organizations [15,16]. Formulas for the distribution of savings or payments to radiologists and other specialists under such frameworks are still in evolution. Because it is unlikely that payments for individual radiologist interpretations will rise, and it is concurrently likely that imaging volumes per enrollee will decrease no matter what reimbursement scheme becomes dominant, radiologists will need to document noninterpretive value-added services that will enhance the health enterprise they serve. Execution of this imperative will again be facilitated by the inclusion of radiologists within the governance structure of these organizations. Whether radiologists can deliver most effectively on these value requirements as employees within an health system or as leased, contracted, or otherwise tightly aligned partners remains to be seen [3].

ACCESS TO INFRASTRUCTURE RESOURCES AND SUPPORT

Because imaging is a central element to a majority of modern care pathways, there are numerous opportunities for radiologists to positively influence the efficiency and quality of the health systems and facilities they serve. Potential value-added contributions—including but not limited to utilization management, enterprise electronic information resource interconnectivity, enhanced imaging department operations, and related managerial and administration functions—will largely be enabled by sufficient access to and support from system technology and business management infrastructure. Within the increasingly burdensome administrative environment of the current health care environment, the capital and staffing demands of these contributions and solutions can be formidable. On the basis of size, hospital entities typically command superior resources compared with the traditional radiology group to invest in and support technology infrastructure. Access to these resources as well as participation within the larger and typically more diverse business management teams at hospitals could provide a gratifying aspect of employment for radiologists. Additional favorable opportunities for employed radiologists to benefit from hospital enterprise economies of scale include more efficient provision of malpractice insurance and employee benefits programs, oversight and performance of billing functions, and contracting negotiation clout.

These attractive and valuable potential advantages come with significant potential caveats to be determined by local circumstances. How does the hospital entity value the importance of imaging compared with other services? Are decisions with regard to staffing and technology approached from a long-term view, or do near-term cost factors dominate the equation? Does the hospital entity have its shop in order with regard to billing, contracting, and human resources? Detrimental scenarios based on these factors are not difficult to imagine.

Traditional franchise contracts between radiology groups and hospitals are frequently destabilized by the issues of exclusivity and credentialing, particularly for the performance of certain image-guided procedures. Radiologists’ so-called turf losses have typically been asymmetric in that what is lost invariably represents attractive, well-paying work that is not offset by similarly characterized new work and typically is not accompanied by parallel decrements in operational and management responsibilities [12]. In an integrated service model, pressure on the hospital from employed nonradiology specialists for granting of privileges to perform traditional radiologic imaging services may be decreased but is unlikely to disappear. There is an established base of nonradiology specialists who have integrated the performance of these services into their practice and are unlikely to abandon them voluntarily. How granting of privileges and performance of these services are apportioned among the physician employees of a hospital will affect job satisfaction and, in some cases, maintenance of competency standards.

The determination of value and contribution of radiology to the health care mission of a hospital, or any other integrated health delivery entity, will become more difficult (with existing tools and measures) within bundled and global reimbursement and patient-based payment scenarios. That said, fee-for-service payments should persist for many years as these other reimbursement structures are developed and adopted. The Resource-Based Relative Value Scale may persist in the background as a well-established and understood measurement tool for performance management even when (if) the fee-for-service system is supplanted. Inasmuch as perceived underperformance of radiology contributions to the hospital mission can potentially hurt subsequent resource assignment to radiology, it will be imperative for hospital central billing offices to match or beat the performance of private billing groups to protect against such undervaluation of radiology. Of course, even in a best-case scenario with regard to hospital billing and collections of radiologic services, it would still be possible for hospital administration to deemphasize radiology’s needs within the greater scheme of system priorities. This eventuality yet again highlights the need for radiologists to discover and maintain sufficient voice and influence within hospital governance structures to advocate against ill-advised practices and decisions and to preserve some sense of control within the framework of captive employment.

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CONCLUSIONS
Hospital employment represents one end of a spectrum of opportunities for radiologists to participate in the movement to better align and integrate incentives within the greater health care marketplace for the benefit of patient care quality and cost. Forfeiture of an unsustainable or difficult to sustain independent practice model in return for the potential job stability and promise of superior capital, technical, staffing, and administrative resources accessible through hospital employment may be attractive for radiologists in some situations. Other more entrepreneurial solutions to control risk, some of which maintain greater independence of radiologists, are also available and have been deliberated by this committee. These include practice integration and merger models, management and comanagement contract options, as well as the more recent phenomenon of large corporate radiology entities purchasing local radiology groups. It is likely that radiologists will fare better in the long term by maintaining their independence. However, individual circumstances will determine advantages and disadvantages of competing approaches for radiology groups considering affiliation and ownership decisions and challenges. Additional reports to the membership examining some of these alternatives are planned.

TAKE-HOME POINTS
- It is imperative that ACR members be informed of the potential advantages and risks of evolving practice model opportunities.
- Radiologists who are finding independent practice difficult to sustain may want to consider employment by their hospitals.
- Hospital employment offers certain potential advantages, such as job security, predictable income (at least initially), a stable referral base of other employed physicians, more favorable contracting with payers, availability of the hospital’s infrastructure resources, and others.
- There are potential risks as well, such as too much dependence on a single entity, loss of negotiating leverage when the employment contract comes up for renewal, loss of the ability to determine levels of radiologist staffing, unreasonable productivity demands by the hospital, loss of influence within the hospital’s governance structure, and others.
- Individual circumstances will determine the relative advantages and risks of these competing approaches for any radiology group.

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