Perspective

Recipe for a Successful Hybrid Academic-Community Radiology Practice: Canadian Experience

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INTRODUCTION

Across the United States, financial pressures and health-care reform have resulted in a continuing trend of health-care consolidation, mergers, and the expansion of academic medical centers (AMCs) into the community. Radiology departments within these institutions have been forced to adapt to these changes (1–4). In Canada, there is a similar trend of AMCs to community expansion, and a shift away from the traditional dichotomous practice of radiology (academic or community practice) to an academic-community fusion practice (5). This trend can be partially attributed to a "brain drain" from academic to community medicine, owing to the additional demands placed on academic radiologists, and lower income compensation when compared to their community counterparts.

The purpose of this commentary is to summarize the current literature describing the expansion of academic radiology into the community, and to provide a perspective from an academically owned community practice in Canada.

CASE STUDIES

In 2010, Hazleton et al. (6) outlined the partnership created between a community-based medical school and a private radiology practice in the United States. An important factor that contributed to the success of this partnership was an open line of communication between parties. Before formalizing the partnership, both parties collaborated on an affiliation agreement outlining specific goals with respect to medical student and resident education, clinical care, financial solvency, and a fostering of the relationship between organizations, although both parties were permitted to retain autonomy and control. A clear exit strategy was outlined in the agreement in the event that the partnership failed. The simplicity of objectives and inclusion of a clear exit strategy contributed to the existing sense of trust between the organizations, which stemmed from their joint involvement in the radiology residency program.

To solidify the partnership, a new executive committee for the Department of Radiology was created (6). Additionally, private practice physicians were offered various faculty appointments within the department, including positions such as the director of the residency program, educational directors responsible for subspecialty content for the residency program, and the vice chair of clinical affairs for the outpatient imaging centers. Radiologists from the private practice with existing volunteer faculty appointments retained these positions, and continued to be involved in resident education through lectures, case conferences, and teaching. On the clinical side of the arrangement, the private practice radiologists agreed to provide coverage of the university's outpatient imaging centers, whereas university radiologists working in underserved subspecialties started taking on coverage at a local hospital. Both parties also made financial contributions to future research and technology-based initiatives, to further the growing research reputation of the university. The university was able to achieve a level of clinical expertise and residency education that was previously not possible, and the private radiology practice was able to attract top subspecialty radiologists who were enticed by the benefits of private practice, additional financial remuneration from educational compensation and image interpretation at the university's outpatient imaging center, and academic teaching opportunities (6).

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In 2005, Cohen and Jennings (2) described the effect of institutional mergers on radiology departments at 15 sites across the United States, from 1993 to 2004. All the mergers involved at least one AMC as the merging partner, with varying degrees of integration between the two institutions, ranging from simple collaboration with no shared financial risk to complete takeover of a private hospital by the academic institution. Of the mergers, 12 were still operational as of 2005, and three resulted in legal separation of the institutions. The first merger failed because of ambiguity in the terms of the merger and the roles of both the board members and the separate institutions, and an inability to achieve projected cost savings. The second was burdened by non-remediable cultural differences between the institutions. The final merger failed because of lack of transparency regarding initial merger discussions, creating a sense of distrust that was furthered by the chief executive officer of one merging partner retaining this position for the combined institutions. Overall, the effect of the merger on the radiology group was variable, although generally perceived as negative or neutral, and merger failure or success did not depend on the type of merger.

In 2016, Croft et al. (4) offered a logistical perspective to institutional mergers, and discussed the 5-year imaging asset plan and radiology workflow observations following the merger of a small community hospital in Georgia with a large academic medical center in Florida. The econometric report was generated based on statistical models of demographic factors of the incidence of chronic disease, and inpatient and outpatient imaging utilization for the areas serviced by the community hospital, whereas the staff interviews provided more specific information about each imaging site, including the layout, staff composition, equipment preferences, the hours of operation, workflow, and service issues. Standardizing equipment and processes across sites offered overall benefits in terms of workflow efficiency and cost-effectiveness, but a challenge unique to radiology was whether to standardize imaging protocols across sites as well. The scan complexities, workflow, and technology will be different depending on the location and type of imaging center, so protocol standardization should be applied only after careful thought.

CASE STUDY: CANADIAN PERSPECTIVE

The following case study focuses on a partnership formed between an academic university hospital and a community radiology practice in Canada. The university hospital in the partnership is a level 1 trauma center, which serves as the regional stroke, cardiac, and vascular center for a population of 2,500,000 people, and has coverage by radiology subspecialists. The community radiology practice is the largest community practice in our province owned and operated by an academic group of radiologists. The radiology services include 16 outpatient state-of-the-art imaging centers, with picture archiving and communication system (PACS) technology used throughout the sites. There are different PACS systems at the academic medical center and community practice because of prohibitive cost of PACS installed at the academic medical center. The same radiology group owns the community practice, and provides comprehensive coverage to the academic medical center. The academic radiologists purchased the community practice. The original owners of the community practice became partners in academic radiology group and received academic appointments. There are separate management structures for the academic and community practice. Community practice is managed by the elected Board of Directors. The Departmental Chair, Chief of Service at the Academic Medical Center, and the Program Director of the Residency Program are not eligible to participate in elections to the Board of Directors of the community radiology practice.

The partnership has resulted in numerous benefits in terms of financing and staffing. The community practice provides an additional source of revenue for the academic hospital-based radiology group, thus relieving some of the financial pressures and allowing for time dedicated to furthering the research and educational goals of the institution. Additional revenue is generated through an increased number of referrals to the hospital, in part because of case discussions with the referring community physicians. The allure of community practice remuneration combined with teaching and research opportunities are incentives that help recruit top radiologists to the academic center.

The formation of the partnership was not without challenges, some of which will be highlighted in the following section. Five specific challenges arising from the integration venture will be discussed, as will the solutions implemented to address them.

Community Practice Coverage

The radiology workforce in Canada is fairly divided between academic and community radiology, with 28% of attending radiologists working in academic centers, 11% in research, 34% in community hospitals, and 13% in a private office or clinic, according to the most recent National Physician survey (7). Traditionally, senior radiologists provided coverage in community radiology practices and were relied on to be competent general radiologists adept at interpreting a variety of imaging examinations. This is in contrast to academic centers, where the radiology staff are often fellowship-trained subspecialists. The growing trend of subspecialty fellowship training among radiology residents, and retiring of a number of these general radiologists has contributed to a shortage of general radiologists, which will increase only as more residents enter practice. A recent study by Mok et al. (8) found that 79% of the Canadian radiology residents surveyed intended to pursue subspecialty imaging fellowships following residency. The residents cited enhanced employability, personal interest in their presumed subspecialties, and interest in an academic career, as contributing factors. Subspecialty radiologists are often reluctant to provide coverage to community practices because of a hesitation to interpret imaging examinations outside their