



Developing a Lung Ablation Practice: Experience from a Mid-Size City in the United States

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According to the American Cancer Society, primary lung cancers (both small cell and non-small cell) are the second most common cancers in both men and women in the United States. For 2021, they estimate approximately 235,000 new cases of lung cancer and approximately 132,000 deaths.¹ The treatment of lung cancers traditionally requires a multidisciplinary approach including thoracic surgery, radiation, and chemotherapy. Recently, percutaneous ablation has proven to be a promising modality in the treatment of primary lung cancer as well as metastatic disease. With a growing body of evidence, there are several percutaneous ablation therapies being utilized for the treatment of lung cancers including radio frequency ablation, microwave ablation, and cryoablation. Newer literature suggests that percutaneous image-guided ablation may be a more cost-effective option with less severe complications and shorter recovery times, all while preserving pulmonary function.² As with most novel treatments, there are certain challenges associated with incorporating the new treatment into an existing practice. A technology-driven field like interventional radiology (IR) is constantly developing new treatment modalities and thus constantly tasked with incorporating them into existing practices. This article will address some of these challenges and how to overcome them.

Ultimately, the success of any new service line depends on the need for the service provided. As we have mentioned, lung cancer is one of the leading causes of cancer deaths in the United States. Surgical resection is one of the gold standard therapies; however, approximately 20% of patients are poor surgical candidates due to comorbidities or insufficient lung reserve.³ While these numbers reflect the entire nation, it is best to examine the numbers associated with your potential target region. For example, in 2018 Osuoha et al determined that Southern Nevadans receive dispropor-

tionately fewer surgical resections than patients in Northern Nevada. They conclude that patient comorbidities and overall shortage of doctors may be contributing to this disparity. They also mention the increased rate of uninsured and low socioeconomic status of patients should be taken into account when considering accessibility to treatment.⁴ Nonetheless, this has left a need for a cost-effective alternative treatment to surgical resection.

Based on our experiences, the next challenge is establishing the infrastructure necessary to perform the indicated treatment. For our purposes, we will discuss the process of augmenting an existing hospital-based IR suite with percutaneous image-guided ablation capabilities. As with any proposed change within a hospital, administration should be involved. The best approach is to provide a brief overview of the proposed treatment and the data highlighting the need for the new service. As discussions progress, it will eventually be necessary to provide a list of relevant Current Procedural Terminology codes for reimbursement, required equipment, and required supportive staff and necessary training. Administrators can then determine whether the service will provide value to the hospital. Once the program has been approved, it becomes necessary to seek referrals.

We have found that targeting referrals within one's own hospital system is the most efficient method. Ideally, the interventional radiologist will have or is able to establish good working relationships with other providers in the system and garner a decent understanding of how they generally manage their patients. The radiologist can then begin to educate other providers about IR and more specifically about the new service line. The interventionalist can participate in local tumor boards that may allow the radiologist to suggest percutaneous ablation as an option when it would be overlooked otherwise. If time permits, the

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radiologist can also coordinate times to review positron emission tomography scans with their nuclear imaging colleagues to identify potential cases and review them with the patient's primary provider. While intrasystem referrals are the most obvious and efficient method, it is not the only way to acquire referrals.

Outside referrals are made possible by quality marketing and education. As we progress further into the digital age, the IR department and some of its treatment modalities should be highlighted on the hospital website. The interventional practice should also be established as a part of the hospital's cancer center if it has not previously done so. We have found that the hospital website alone is enough to generate a significant portion of self-referrals. In our opinion, it may be wise to connect with the hospital's marketing department to discuss ways the practice can be advertised in print, televised, or social media. In addition, the practice can have a presence at local grand rounds as well as regional conferences. As the service line begins to gain traction, the outcomes data can merit its own series of educational materials and presentations that can be used to further spread awareness.

Percutaneous image-guided ablation is a relatively newer treatment option for lung cancers. Though limited in use, it has shown promise of both safety and efficacy. Incorporating it into your IR practice may seem like a tall task, but can be divided in a small set of more manageable steps. Once the need for a lung ablation service has been established, a proposal can be presented to hospital administration that highlights its need in the community and the value it will provide the hospital. Referrals can be acquired from within the hospital system as well as through external referrals. Quality education about percutaneous ablations is at the basis of all marketing. Whether presenting at tumor boards or local conferences, the interventional radiologist should

know the procedure and how it will benefit patients in depth. Most of the challenges associated with establishing a new IR service line can be overcome with deliberate and focused efforts. Creating and maintaining a strong IR service allow for increased visibility of IR in the hospital and enhanced relationships with both referring doctors and patients. Understanding the advantages of and potential obstacles associated with developing and maintaining an IR service is crucial for interventional radiologists to establish themselves as clinical practitioners and provide optimal patient care. Based on our experience of establishing the first lung ablation service in Las Vegas, we recommend these clinical, administrative, and marketing strategies as the blueprint for developing a new interventional service.

Conflict of Interest

None declared.

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