Developing a Stroke Center

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See related article, p 1715

Stroke neurologists are in high demand as increasing numbers of hospitals develop new or expand existing stroke programs. A growing number of recent neurology graduates are hired as neurohospitalists by hospital networks, with the goal of improving stroke care. Although stroke subspecialty training is not required to be a stroke director, it is highly valued; in a survey of academic neurology departments, 73% of respondents ranked clinical expertise in stroke as the most important requirement for a neurohospitalist. Charged with leading a stroke program, these early career physicians are expected not only to provide clinical stroke care but also to assume major administrative responsibilities. These may include guiding a community hospital (with or without an academic affiliation) to Primary Stroke Center status, expanding a larger hospital’s program to become Comprehensive Stroke Center certified, or simply maintaining the stringent quality measures required by the Joint Commission and other regulatory bodies.

Stroke fellows typically train in large academic centers with established stroke programs, and recent graduates may encounter significant challenges when transitioning to a leadership role in a less developed program. Faced with a new set of colleagues, new systems of care, and often a new geographical location, newly minted stroke neurologists may initially feel overwhelmed. We outline 7 strategies that may prove useful in the first years of practice as a stroke director.

Learn the Existing System First

Restructuring existing stroke processes to improve the system can be a delicate balancing act and requires first learning and understanding current institutional practice. The first step is to get to know the system: observe, listen, and introduce yourself to all the members of your stroke program, as well as all providers involved with the care of stroke patients. Pay attention to the clinical practice patterns, culture, and environment and notice (without judgment) any similarities and differences when compared with institutions where you trained.

Build Your Team

The importance of building a multidisciplinary team dedicated to improving stroke care cannot be overstated. Identify core team members in each discipline: emergency medical services, nursing, radiology, pharmacy, laboratory services, social work, and rehabilitation. Physicians, midlevel providers, and nurses from all related disciplines (emergency medicine, neurology, neurosurgery, interventional neuroradiology, neurocritical care, and rehabilitation medicine) should be included in the conversation; these are the people in the trenches. Offer your help in developing a workflow process for each division to help streamline stroke care.

Find an Ally in the Hospital Administration

Presumably, someone in the administration is interested in stroke, or you would not have been hired. Develop a close working relationship with that person. Invite administrators to join multidisciplinary meetings. Learn about the hospital’s goals and plans for growth and restructuring, and bring administrative attention to stroke as an important diagnosis to consider when making these decisions. For example, administrators may not be aware that obtaining Joint Commission certification as a Primary or Comprehensive Stroke Center may reap substantial benefits in terms of market share while also significantly improving quality and efficiency of care because of improved patient outcomes.

Learn to Manage With Limited Resources

Translating processes and best practices to a resource-limited setting is not straightforward. Find out what already works and build on that. For example, if transfers of care for ST-segment-elevation myocardial infarction patients are already streamlined, can similar processes be applied to thrombectomy candidates? Can outpatient stroke care be incorporated into an existing primary care or neurology clinic? Small and inexpensive changes can have large effects on treatment times—for example, working with emergency medical services to ensure that teams prenotify the emergency department (ED) for all suspected stroke patients and that stroke teams are activated in time to meet the patient at the door. Training ED triage
nurses to better recognize stroke symptoms is another small intervention that may reap lasting benefits. Creating reference cards for nurses and house staff for code stroke timelines and processes can lead to improvements in treatment times for in-house acute strokes.

**Engage With the Emergency Department**

Not all emergency physicians love stroke—but some do. Find an emergency physician who shares your enthusiasm for acute stroke care and start collaborating. Watch how other acute processes are managed in the ED (eg, trauma, acute myocardial infarction) and understand what makes them work well. These processes can be helpful models on which to shape and develop acute stroke practices. Develop a feedback mechanism after acute stroke codes resulting in thrombolysis and thrombectomy; even simple tools like e-mail chains can result in significant reductions in treatment times. On an administrative level, meet with the ED director and offer to present stroke metrics/policies as part of multidisciplinary quality meetings. Start monthly stroke performance meetings and invite ED representatives to attend.

**Trust Your Training**

Especially at smaller community hospitals, you may no longer have the luxury of walking down the hall to run a case by a senior colleague. You will have to rely on your training and your knowledge of the literature for everyday decision making. You may be surprised at how much you bring to the table. With tough cases, reach out to colleagues in interventional neuroradiology, neurosurgery, and cardiology or to trusted mentors from your training years to ask for advice. Ask your department to fund lunch for a weekly stroke case conference to discuss interesting or unusual cases.

**Avoid Isolation**

Regardless of affiliation with a major academic center, a busy clinical schedule can make it challenging to get to grand rounds or teaching conferences. If you do not have a team of residents or midlevel providers to work with, this can lead quickly to isolation and burnout. Be vigilant about this and make a plan to protect yourself. Reach out to other services such as internal medicine and cardiology and attend their educational lectures. Offer to give lectures to residents, midlevels, and nurses in related disciplines. Ask for protected time to attend weekly grand rounds at the main campus hospital and regional or national meetings where you can update your knowledge and connect with your peers. Consider joining a regional network of stroke centers to connect with colleagues in similar positions.

**Conclusions**

Building institutional knowledge can be a mammoth task, and change will not happen overnight. You cannot fix everything immediately, and not everything may need fixing. Observe, see how things work, build relationships, and check any arrogance at the door. Not everything done at the institution where you trained is always correct, and although evidence can guide us, nuances of systems-based practice differ from region to region and hospital to hospital. Adjusting expectations and setting small but achievable goals will lead to steady incremental change, as well as personal and professional satisfaction.

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**References**


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