Stroke Center Certification Remains a Controversial Subject
SAEM Meeting brings together stakeholders to address both sides of the subject
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In early February 2004, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO ) officially rolled out its long-awaited certification program designating qualifying hospitals as "primary stroke centers." These will be hospitals determined to have the resources, organization and expertise to diagnose and manage patients with acute stroke.

The initiative is supported by the American Stroke Association, and the Brain Attack Coalition. Participation in the process is voluntary and not an "add on" to the hospital accreditation process. Regardless of the momentum towards this fundamental change in the care of stroke patients, the stroke center concept has not completely won over the critical group of professionals who meet these patients at the hospital door: emergency physicians.

With this controversy in mind, Ed Sloan, MD, and Andy Jagoda, MD, members of the Society for Academic Emergency Medicine's Neurologic Emergencies Interest Group, brought together leaders from the various groups with vested interest in this initiative for a panel discussion at May's SAEM meeting in Orlando. Panel members included Brian Hancock, MD, president of ACEP, Mark Alberts, MD, neurologist and lead author of the JAMA Primary Stroke Center article, Robert O'Connor, MD, president of the National Association of EMS Physicians (NAEMSP), Maureen Connors-Potter, Executive Director of JCAHO's Disease Specific Care Certification Program, and Jim Adams, MD, SAEM Board of Directors. The panel was moderated by Ellen Magnis, Vice President of the American Stroke Association, and Dr. Jagoda, who also serves as the ACEP representative to the Brain Attach Coalition.

The stroke center concept is based on the need for coordinated systems to be in place in order to maximize recovery from an acute stroke. Availability of thrombolytics is only one component of acute stroke care, but it is nonetheless a component that must be included in the protocols for a hospital to qualify for certification. The published literature demonstrates that when protocols are not in place (and adhered to) outcomes from the use of thrombolytics are worse than if no intervention is provided. However, thrombolytics aside, other components of acute stroke care such as blood pressure management, prophylaxis against aspiration and DVT, and early rehabilitation, can make stroke centers the preferred environment in which to receive care.

There are several reasons why certifying hospitals as stroke centers is controversial. One is the use of t-PA, whose effectiveness in the treatment of acute stroke continues to be met with skepticism by some physicians. The ACEP Clinical Policy Statement on t-PA published in 2001 states "There is insufficient evidence at this time to endorse the use of IV t-PA in clinical practice when systems are not in place to ensure that the inclusion/exclusion criteria established by the NINDS guidelines for tPA use in acute stroke are followed." The SAEM Policy Statement on acute stroke published in 2003

states, “Currently insufficient data exist to mandate thrombolytic therapy as the standard of care for acute ischemic stroke for all patients across all medical treatment settings”.

There is also significant concern that designated stroke centers will lead to redistribution of patient volumes in major urban areas and contribute to overcrowding, potentially leading to adverse outcomes for patients in need of other time dependent conditions. The SAEM policy states, “Although advocacy of stroke centers is well-intended, it is premature to stratify acute care hospitals. Such hierarchical stratification should await outcomes data demonstrating the overall systems benefit of such centers.”

Another concern surrounding stroke center designation is the impact on emergency medical services. It remains unclear how EMS will handle issues regarding diversion and whether designated stroke centers will have a legal obligation to accept acute stroke patients even when there is no space to receive them. It would be preferable to proactively sort this issue out rather than leave it the legal community to do it at the expense of the EMS director.

These controversies set the stage for the forum at the SAEM meeting, which began Dr. Hancock’s presentation provided important perspective on the origins of ACEP’s policy statement for stroke and concerns ACEP continues to have regarding stroke center designation. The ACEP ED Certification Task Force report released in 2000 stated “The Task Force believes that the College should continue to actively support the concept that Emergency Physicians are trained to manage any patient coming to the ED with an emergency condition. Any plan that suggests restriction of general emergency department access based on the patient’s clinical characteristics should be evidence based.” The policy goes on to say that any redistribution, “must be required to show a benefit to the general public that outweighs the potentially negative impact on the access to and provision of emergency care”.

Since the available evidence remains weak at best that designated stroke centers would provide better emergency department outcomes than general initiatives that promote education in acute and chronic stroke care, Dr. Hancock expressed reservation in endorsing the JCAHO/ASA initiative. He reviewed the October 2003 ACEP Council recommendation that ACEP “monitor the progress of any federal stroke legislation and dedicate resources to make members of Congress aware that standards of care in stroke treatment remain controversial and that the designation of stroke centers based on the ability/willingness to adhere to such standards of care may have unintended negative consequences.” Dr. Hancock emphasized ACEP’s philosophy that the development of “standards of care” are the prerogative of the medical community and as such he concluded that ACEP did not believe at this point in time the JCAHO initiative was in the best interest of the American health care system.

Dr. Mark Alberts, lead author of the primary stroke center article published in JAMA in 2001, stated that “the primary motivating factor for stroke centers was not to promote the use of t-PA”. Dr. Alberts did say that in order to qualify as a stroke center, a hospital had to have a protocol that included consideration of t-PA’s use. In addition, Dr. Alberts

reminded the audience that the National Institute of Neurological Disorders and Stroke did release its data set from the 1995 trial for independent review by a panel that included Lewis Goldfrank, MD, past president of SAEM. The-NINDS analysis, which was presented at the 2003 SAEM meeting, validated the statistical analysis of the data and confirmed the benefit of t-PA in improving stroke outcomes, Dr. Alberts said.

Dr. Alberts went on to say that stroke centers will benefit patients, physicians and hospitals, and will improve research. He emphasized that since emergency physicians are concerned that they alone cannot provide the time sensitive, comprehensive response required by the acute stroke patient, the stroke center initiative will provide the framework to ensure appropriate care similar to the way trauma centers have helped meet the needs of trauma patients.

Dr. Alberts reviewed the literature which shows that stroke centers can reduce mortality and morbidity. He reviewed the components needed to qualify as a primary stroke center and briefly reviewed the components of "comprehensive stroke centers" that is expected to be published in JAMA in the near future. Dr. Alberts concluded his presentation by making the persuasive argument that stroke centers will assist emergency care by providing a coordinated response that ensures rapid evaluations, participation by neurology, neurosurgery, radiology, laboratory, mechanisms for quality assurance, systems improvement, education and research.

Dr. O' Connor, from NAEMSP, provided an overview of EMS's role in acute stroke recognition and transport. The NAEMSP, in addition to ACEP, is a member of the Brain Attack Coalition and has provided active input into recommendations regarding stroke center certification. The NAEMSP does not have a specific policy on stroke centers but agrees that EMS must be intimately involved in any community's decision to direct access of acute stroke patients to specific centers.

The SAEM Board of Directors wrote a policy statement on the management of acute stroke that was released in the Winter of 2003. The policy supports the need for research in acute stroke and identifies the need for better outcome studies before endorsing the use of thrombolytics and the designation of stroke centers. Dr. Adams, representing the SAEM Board, reasserted that position and strongly encouraged the emergency medicine community's involvement in acute stroke research and education. Dr. Adams supported the stroke center concept in theory but resisted endorsing it in practice until additional supporting evidence is available.
The last presentation was made by Maureen Connor Potter, Executive Director of JCAHO's Disease Specific Care Certification Program, who described the Primary Stoke Center certification program as a "voluntary merit badge of courage." In establishing an acute stroke team and following the specified clinical practice guidelines, a primary stroke center would profit from "improved clinical outcomes" as well as reimbursement, liability, and research benefits, said Ms. Potter.

The current clinical performance measures of the JCAHO's stroke center initiative include the use DVT prophylaxis, appropriate anticoagulation for atrial fibrillation,

antithrombotics at discharge, and *consideration* of t-PA in those patients presenting within three hours of symptom onset; this last element fueling the disagreement in the emergency medicine community by potentially mandating a controversial standard of care. Indeed, Ms Potter cited one case where certification was threatened due to one member of the emergency department refusing to consider the use of t-PA. The situation was resolved, and certification granted, when the emergency physician agreed to call the stroke team as per protocol and allow the stroke team to make the t-PA decision. As of May 2004, JCAHO has certified 17 stroke centers with hundreds of applications in process.

While there may be strong feelings in the emergency medicine community on both sides of the stroke center concept, the Neurologic Emergencies Interest Group meeting in Orlando emphasized the reality that stroke centers *are* coming, whether all the practitioners involved are ready or not. The forum was successful in keeping different interest groups informed of each other's questions and concerns.