Clot-dissolving drug administered to greater variety of patients, still not fully utilized


Key Points:
- Substantial efforts over the past decade have increased rates of intravenous tissue plasminogen activator (tPA).
- Little is known about how the profile of treated patients has changed over time.
- We analyzed two populations of stroke patients from 2003 to 2011 in Get with the Guideline – Stroke to determine if rates of tPA use were increasing and in what types of patients.
  - Group 1: Just those ischemic stroke patients arriving ≤2 hours after symptom onset and treated with tPA ≤3 hours after onset (n=50798).
  - Group 2: all ischemic stroke patients (n=1093895) regardless of when they arrived or if they were eligible for tPA.
- Intravenous tPA use ≤3 hours after onset increased from 42.6% to 77.0% in Group 1 patients who were fully eligible for tPA (P<0.001).
- Intravenous tPA use ≤3 hours after onset increased from 4% to 7% in all ischemic stroke patients.
- IV tPA use increased over time, especially in those aged >85 years, nonwhite, and with milder strokes (National Institutes of Health Stroke Scale 0–4).
- ≈65% of tPA-treated patients got brain imaging ≤25 minutes after arrival.
- Multivariable analysis showed that with each additional calendar year, the odds that an eligible patient would receive tPA increased by 1.37-fold.
- Conclusions—The frequency of IV tPA use among all AIS patients, regardless of contraindications, nearly doubled from 2003 to 2011. Treatment with tPA has expanded to include more patients with mild deficits, nonwhite race/ethnicity, and oldest old age.

News Release from Massachusetts General Hospital: Use of the "clot-busting" drug tissue plasminogen activator (tPA) to treat patients with strokes caused by a blockage of blood flow nearly doubled between 2003 and 2011, but not all eligible patients are receiving the potentially life-saving therapy.

Time Lost is Brain Lost. Use this Target: Stroke link for valuable Clinical Resources and Tool Kit.

Dr. Lee Schwamm is Professor of Neurology at Harvard Medical School and Executive Vice Chairman of Neurology at the Massachusetts General Hospital, where he is the Director of the Stroke Service and Medical Director for MGH TeleHealth. He also serves as Director of the Partners TeleStroke Center, a network which currently provides acute stroke consultation services to over 30 rural and community hospitals in Massachusetts and Northern New England. His clinical interests are in Cerebrovascular Diseases, Intensive Care Medicine, Brain Imaging and Applied Healthcare Technology. Dr. Schwamm is a recognized leader in the field on the acute stroke treatment, stroke advocacy, and in the use of telemedicine and other telehealth strategies to improve the quality of stroke care. He has played a pivotal role in the development and leadership of the American Heart Association's National “Get With the Guidelines–Stroke” program, and is a member of the GWTG Steering Committee & Science Subcommittees; as well as the AHA committees on Stroke Secondary Prevention, and Joint Commission Primary Stroke Center Certification. As an expert consultant on stroke systems of care, he has provided medical leadership to the Massachusetts Dept of Public Health, CDC's Paul Coverdell National Acute Stroke Registry, the Joint Commission and National Quality Forum for state-based and national stroke center designation programs and stroke performance measurement. Dr. Schwamm graduated from the Harvard Medical School in 1991 and completed his neurologic training and NeuroCritical Care & Cerebrovascular fellowships at the Massachusetts General Hospital.
Get With The Guidelines®-Stroke is much more than a data registry. It's a comprehensive program for supporting quality stroke care, including a library of tools and resources to help improve processes and maximize effectiveness. See Get With The Guidelines®-Stroke Clinical Tools.

Follow us: