Focus on Quality ENewsletter_Research Corner_6.20.12


Key Messages

- The European Cooperative Acute Stroke Study (ECASS) III study demonstrated benefit to expanding the intravenous tissue plasminogen activator (IV rtPA) window from 3 to 4.5 hours for acute ischemic stroke (AIS) patients.
- This study investigated how this trial influenced utilization of IV rtPA in clinical practice.
- Using the Get With the Guidelines-Stroke (GWTG-Stroke) dataset we identified 217,692 AIS patients who presented to the hospital within 4.5 hours of AIS from April 2003 to March 2011, 106,113 prior to and 111,579 after the publication of ECASS III in September 2008.
- The proportion of AIS patients who presented within 4.5 hours and were treated with tPA in the 3 to 4.5 hour window increased from 1.2% before ECASS III to 3.5% after, P<0.0001.
- The proportion of eligible AIS patients presenting within 3.5 hours and treated within 4.5 hours increased from 19% (18,484 of 96,208) to 35% (26,888 of 77,309), P<0.0001.
- ECASS III appeared to have no adverse effect on the treatment of patients who presented early, as the proportion of eligible AIS patients presenting within 2 hours and treated within 3 hours increased after ECASS III, from 57% to 75%, P<0.0001.
- The median door-to-needle times in patients treated within 3 hours decreased from 79 to 74 minutes, P<0.0001

What Does this Mean for Those Hospitals Treating Acute Ischemic Stroke Patients?

- Following publication of ECASS III there has been a significant increase in the use of IV rtPA between 3 and 4.5 hours without adversely affecting treatment of patients in the <3 hour window.
- However, there remains substantial opportunity to further improve treatment rates in the later time window.

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