



Implementation of an ED-based Rapid Brain-Attack Triage Algorithm in a Regional Tele-stroke network positively impacts treatment rates for Acute Ischemic Stroke patients.

Alexander Venizelos MD, Abhi Pandhi MBBS, Ryan Gianatasio MD, Sherman Chen MD, Paul A Hansen MD, Parita Bhuvu MD, Mark M Murray MD, Anita Guthmann RN BS, Debbie Roper RN MSN, Mark Whitley MBA, Vallabh Janardhan MD



Texas Stroke Institute, HCA North Texas Division, Dallas-Fort Worth Metroplex, Texas

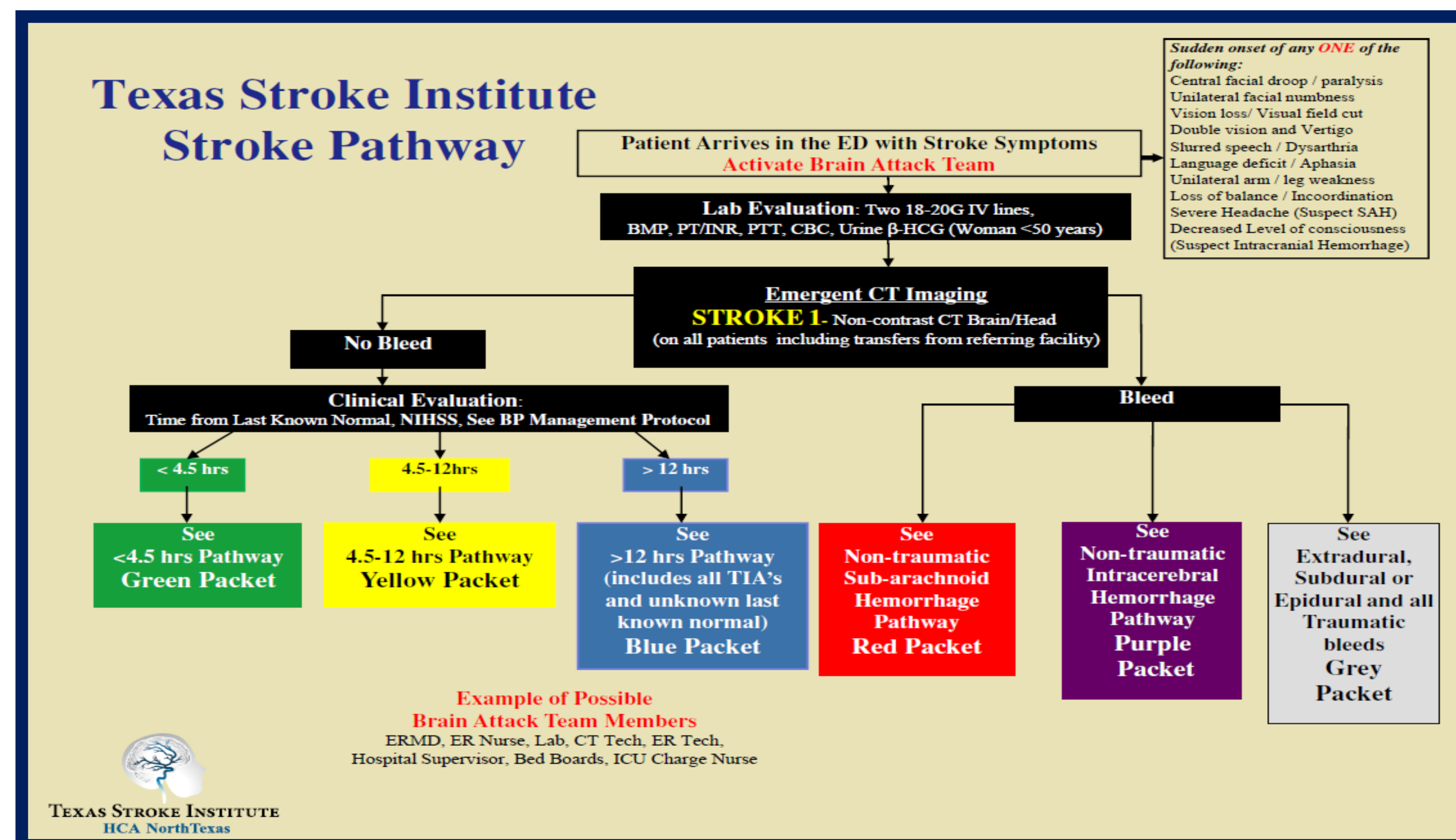
INTRODUCTION

A simplified algorithm for evaluating and triaging brain-attack patients in the emergency department (ED) similar to heart-attack patients can potentially improve treatment rates.

METHODS

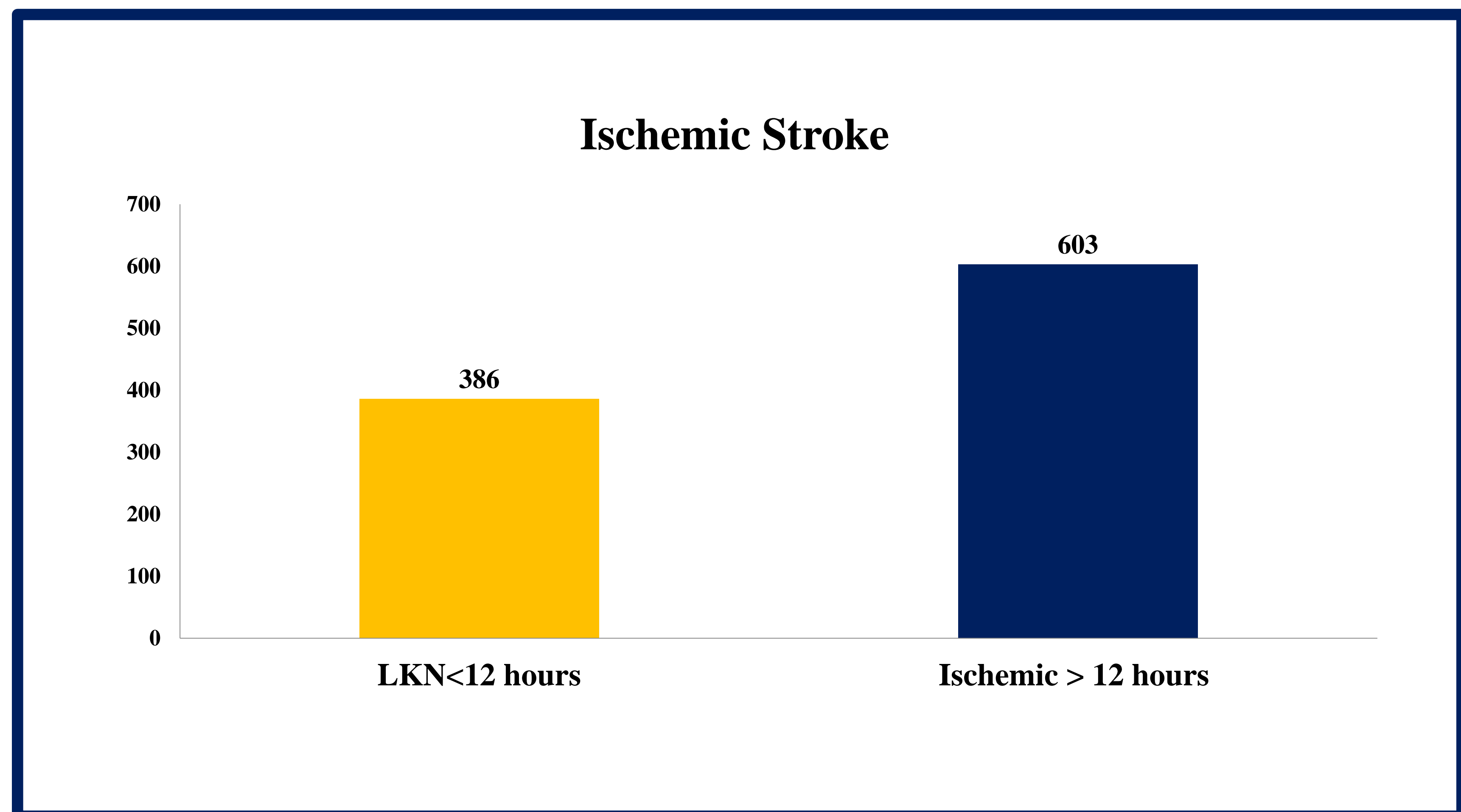
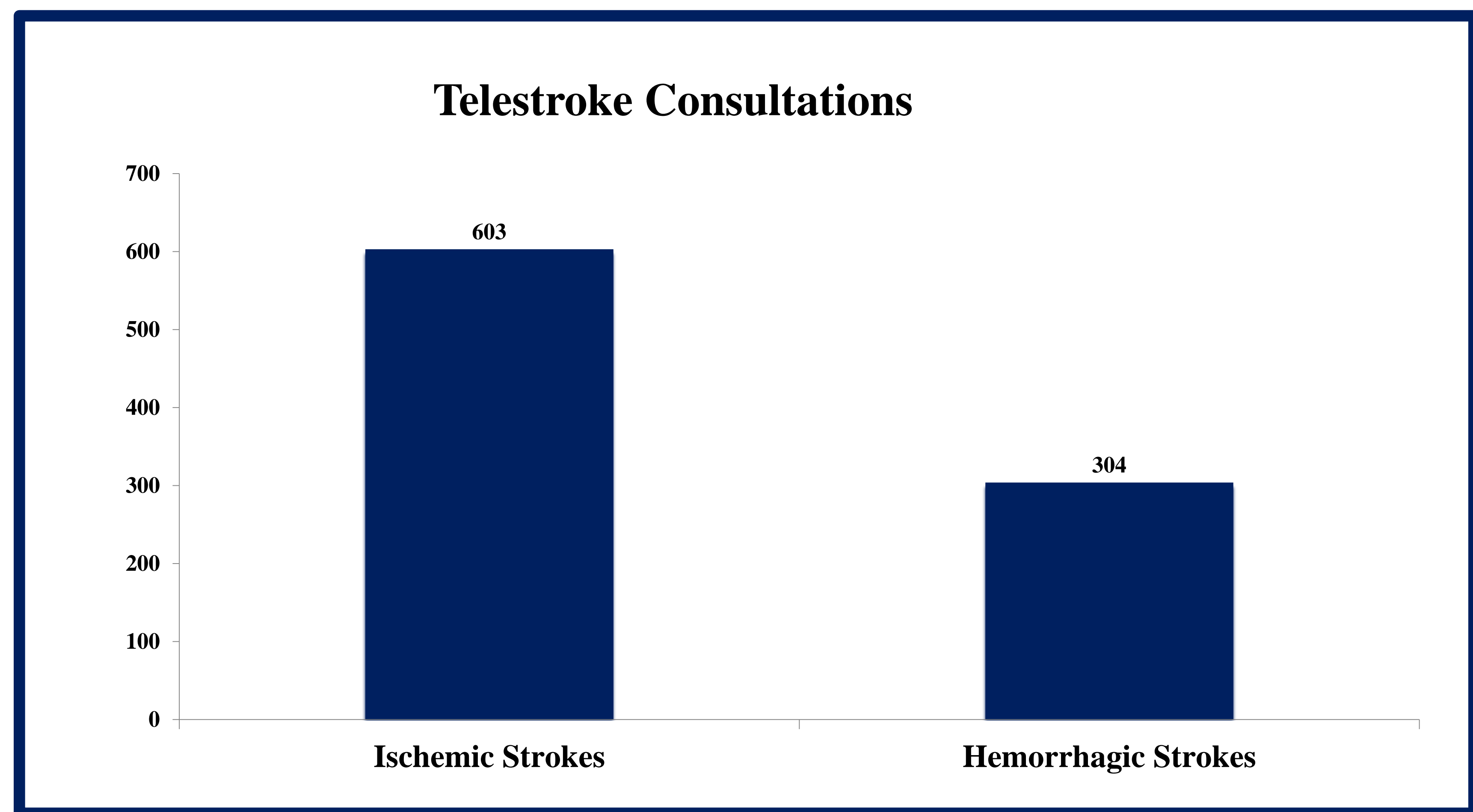
A simplified 2-step ED-based Rapid Brain-Attack Triage Algorithm was developed. The first step includes a non-contrast head CT to distinguish a hemorrhagic stroke from an ischemic stroke. The second step includes identifying the “last known normal (LKN)”. The Texas Stroke Institute Rapid Brain-Attack Triage Algorithm was implemented for all Tele-stroke consultations within the regional stroke network. Data was prospectively collected for a 1-year period from January to December.

TEXAS STROKE INSTITUTE NETWORK

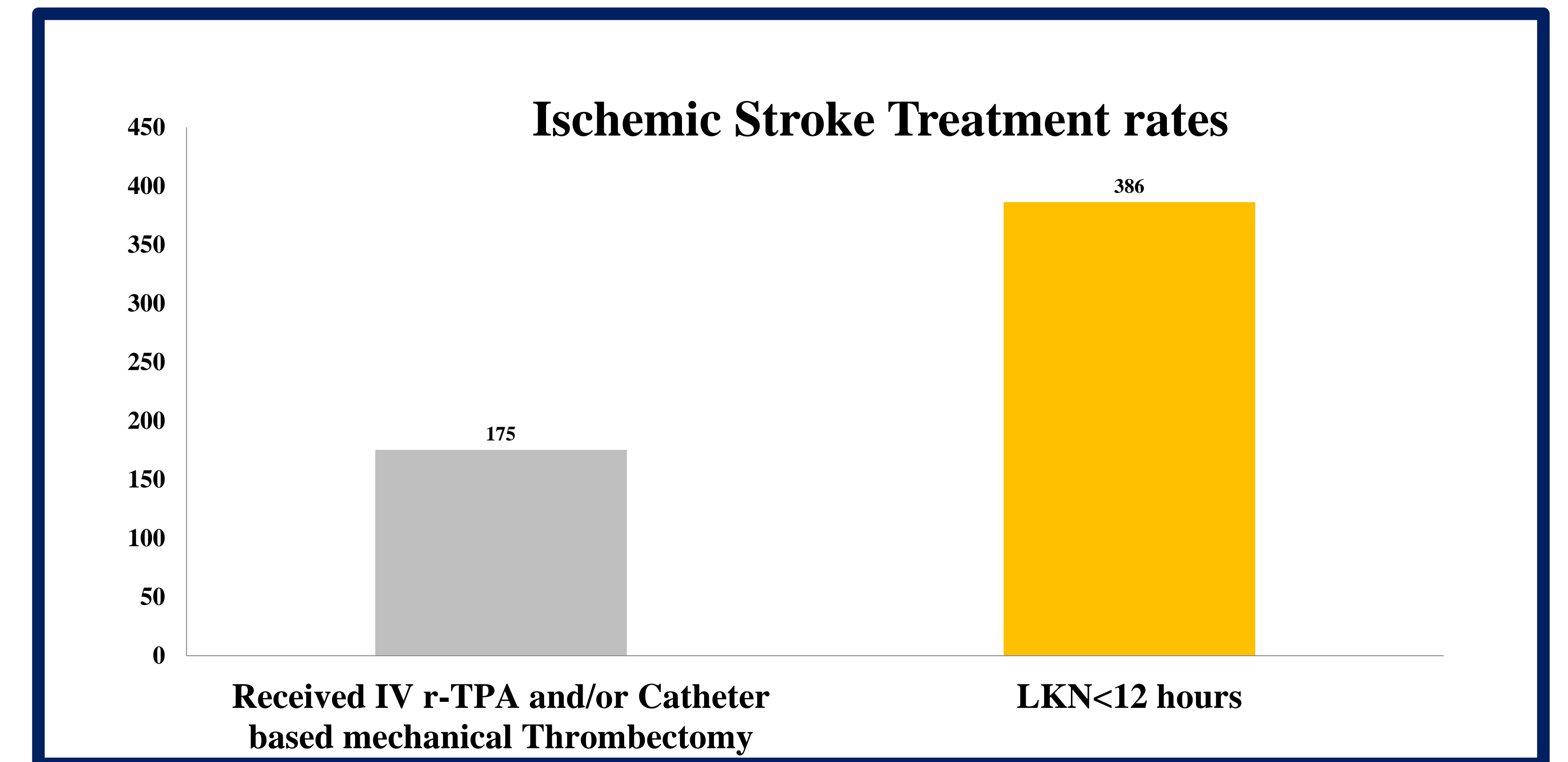


RESULTS

A total of 907 Tele-stroke consultations were performed either via the Telephone or via the Camera. Two-thirds were ischemic stroke patients (603/907; 66.7%) and one-third were hemorrhagic stroke patients (304/907; 33.3%). Among the ischemic stroke patients, 64% (386/603) presented within 12 hours from LKN and 45.3% (175/386) received either intravenous r-tPA and/or catheter based mechanical thrombectomy.



RESULTS CONTINUED



DISCUSSION

A simplified ED-based Rapid Brain-Attack Triage Algorithm as part of a regional Tele-stroke Network is feasible and helps significantly increase treatment rates in patients with acute ischemic stroke. This system has helped identify patients early and initiates the ER physician to stroke specialist dialog. This team approach, along with labs and imaging, has lead to an increased treatment rate for those patients with acute ischemic stroke syndromes in our network.

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