

CHARACTERISTICS OF STROKE CODE ACTIVATION IN EMERGENCY DEPARTMENT SEBERANG JAYA HOSPITAL

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Introduction

It is estimated that 25% of the population is at risk of getting stroke beyond the age of 25 years old¹. In Malaysia, stroke is among the top 3 causes of death². Stroke code activation was officially introduced in Seberang Jaya Hospital in January 2019 and the service remains available despite the current COVID-19 pandemic. Our study aims to provide an insight of the characteristics of stroke code activations in Emergency Department, Seberang Jaya Hospital (HSJ), Penang.

Methodology

This is a descriptive study of all 362 stroke code activations between January 2019 and Jun 2021. Data were retrieved from HSJ Stroke Code Registry online Google Form and analysed using IBM SPSS Statistics version 26.

Results

There were a total of 362 stroke code activated within the 18 months study period, where 9.6% (n=35) were wake up strokes. Majority of the patients were male (n=219, 60.5%) and the mean age was 60 years old (range 21 to 90 years old). Only half of the patients (n=170, 47%) were brought in by ambulance. The mean duration from symptom onset to hospital arrival was 120 minutes (SD 103 minutes) and majority of the patients (n=218, 60.2%) arrived after office hours. Therapeutic yield for our centre was 27.1% (n=98).

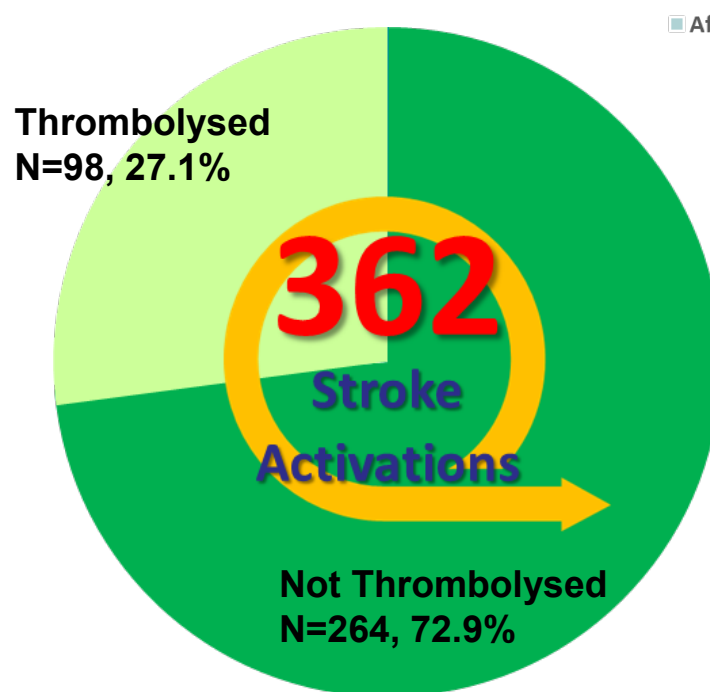


Chart 1: Therapeutic Yield

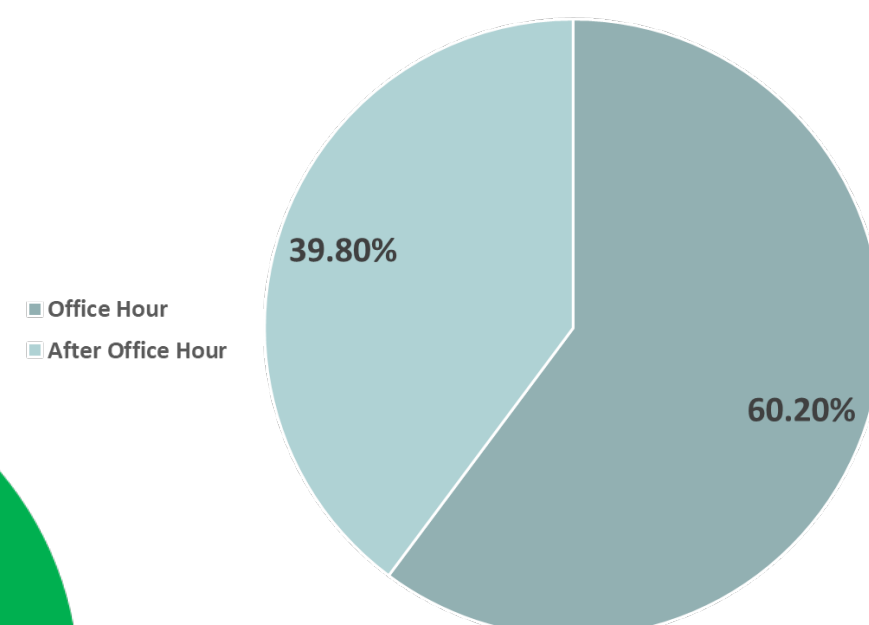


Chart 2: Time of Arrival

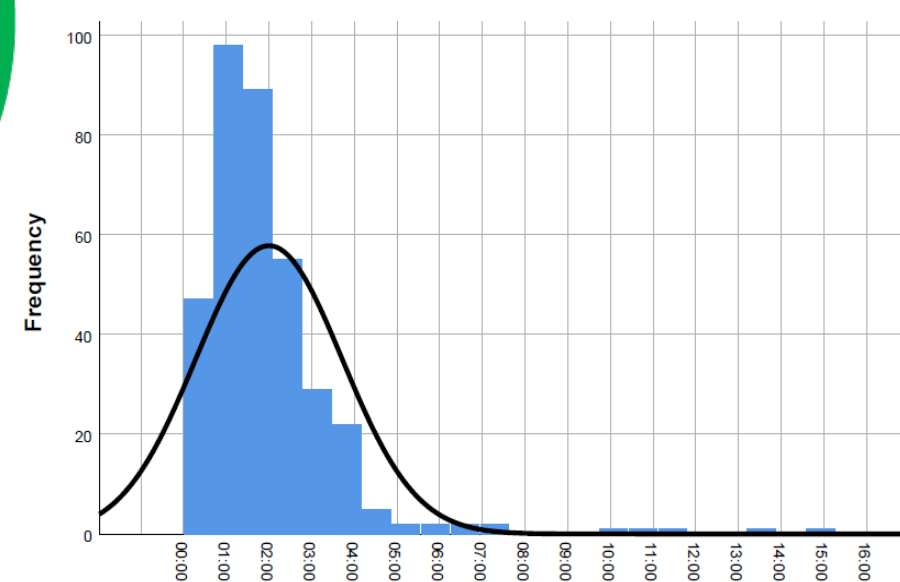


Chart 3: Time of Onset till Arrival to ED

Discussion

Intravenous recombinant tissue plasminogen activator (rtPA) is the gold standard treatment for selected acute ischemic stroke within 4.5 hours of symptom onset³. Our therapeutic yield is at par with international numbers⁴. Nationally and globally, the incidence of acute ischemic stroke is higher in males. However, women who suffered from stroke fare worse clinically⁵. Age is an independent risk factor for stroke⁶. Only 47% of patients arrived by ambulance compared to national average of 60%⁶. This reflects the lack of public awareness on stroke in local community.

Timely thrombolytic therapy leads to favorable clinical outcome⁷, thus time taken from onset to hospital arrival plays a major role in decision for reperfusion therapy in acute ischemic stroke. As majority of the patients came after office hours, the team should be familiar with the work process to ensure similar quality of care being delivered at any time. Stroke code is vital to streamline the flow of acute stroke management.

Conclusion

As the saying goes, "Time is Brain". Management of acute ischaemic stroke is very time sensitive. Public awareness is crucial besides having a good interdepartmental teamwork to ensure optimal outcome.

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Conflict of Interest

None to declare

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