



## Reviewing the Annals of Selayang Neuro Emergency Stroke Thrombolysis Initiative

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### Introduction

Stroke is one of the leading cause of death in Malaysia (Tan, 2022). Hence, Hospital Selayang Emergency Department (ED) implemented a stroke protocol. This program will help to accelerate the process of thrombolysis (Madhok,2019). An organised flow and assessment is created to ensure the indications for thrombolysis is present and prevent complications (Singh, 2023).

### Methodology

Patients that presented with stroke like symptoms from the 1st of February 2023 till 31st May 2023 is included in the article.

Patients that presented within the period of 4.5 hours are triage to resuscitation zone and attended immediately to rule out stroke mimics. Patients are then referred to medical department and to exclude any contraindication for thrombolysis and sent for computerised tomography (CT) brain scan. By reviewing the CT brain images and using the National Institutes of Health Stroke Scale (NIHSS) score, the severity of the stroke is determined and whether thrombolysis is needed.

### Results

A total of 14 patients were included in this article. All patients were able to receive neuro-medical clerking within 15minutes as the medical department medical officer is readily positioned in resuscitation zone during office hours.

13 out of 14 patients were able to do CT brain within 25 minutes; however this could be improved if the CT room is available within ED itself.

Out of the 14 patients, only 2 patients were thrombolysed. The most common reason being the patient has low NIHSS score and exceeded the 4.5 hours window period for thrombolysis.

### Conclusion

Only 14 patients with acute stroke presented during this time which shows that the public's stroke recognition can be improved as not many stroke cases were presented in time. Also, the immediate recognition by PHC team and sending to a stroke capable centre could improve the early recognition (Saini,2019).

93% of patients met the time to CT from the ED. A good stroke protocol with good interdepartmental collaboration between Emergency Department, Neuromedicine, Radio Department as well as good enforcement leads to good response timings and activation (DAS,2021).

Only 14% of patients were thrombolysed during this period. This could be due to the risk and benefit ratios of thrombolysis are scrutinized to prevent complications, recognition of stroke mimics, and enforcement of the NIHSS score prior to thrombolysis with ASPECT scoring as addition to help objectively determine the need for thrombolysis (Lee.2023).

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