**Service Priorities and Programmes**

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**Submitting author:** Dr Siu Hung LI
**Post title:** Associate Consultant, North District Hospital, NTEC

# Intravenous thrombolysis for hyperacute ischemic stroke at North District Hospital: 3- year initial experience

*Li SH(1), Ma KK (1), Tang OL (1), Yam YL (1), Ng SY (1), Ma YH (1), Wan PY (1), Tong Mabel (1), Wong KK (1), Lai MS (1), Kitchell (2), Tsang CC (3), Lee SF (4)*
*(1) Department of Medicine, (2) Department of Emergency Medicine, (3) Intensive Care Unit, (4) Radiology Department, North District Hospital*

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## Introduction

Intravenous TPA for hyperacute ischemic stroke has become the standard therapy in Hong Kong recently. However, the narrow therapeutic window (within 4.5 hours from stroke onset) and scarce manpower in community hospitals limit the use.

## Objectives

In collaboration with Medial, Emergency, Radiology department and Intensive Care Unit at NDH, IV TPA service has been implemented since Dec 2010, providing daytime service from Monday to Friday (except public holiday) when neurologist is available. Guidelines on triage, assessment, post TPA management (including BP and ICH) have been issued to improve the quality and efficiency of service.

## Methodology

On site neurologist and stroke nurse are informed when potentially eligible patients are identified by ER nurses and emergency physicians. Patients are assessed in ER to determine the eligibility of treatment. CT images are interpreted by neurologist either on CT scanner or ePR. After obtaining consent (written/verbal) and confirming the availability of ICU bed, intravenous TPA is administered in ER. The patients are subsequently transferred to ICU for management. CT brain scan is repeated 24 – 36 hours following treatment for every patient to evaluate intracranial haemorrhage. Patients are finally transferred to Acute Stroke Unit for further care.

## Result

Result: Data retrieved from NDH TPA registry (Dec 2010 – Jan 2014) were analysed. Among 120 TPA calls received, 92 patients were ineligible for treatment. Among 28 patients (23.3% of TPA call) received treatment, their mean age was 66 (range 42- 87). 15 patients were male. Median onset-to-door time (exclude in-patient stroke) was 64 minutes (range 10 – 140 minutes). Median door-to-scan time was 21 minutes (range 4-41 minutes). Median onset-to-needle time was 134 minutes (range 76 – 250 minutes). Median door-to-needle time was 65 minutes (range 37-145 minutes).

Median pretreatment NIHSS was 16 (range 4-23). Symptomatic ICH occurred in 2 patients (7.1%). 3-month post stroke modified Rankin Score assessed at neurovascular clinic; 63% of patients (N = 24) had good outcome (MRS 0 -2) (25% MRS 0, 17% MRS 1, 21% MRS 2). 3–month mortality was 13%. Conclusion: In collaboration with different departments and undertaking TPA protocols, intravenous thrombolysis for hyperacute ischemic stroke can be implemented with success in daytime on weekdays in a community hospital. The results and outcomes are comparable with international standard.