



Singapore Healthcare Management 2017

Dedicated Stroke Nurse in Stroke Activation Process Improves Door-to-Needle Time for Intravenous Thrombolysis in Acute Ischaemic Stroke

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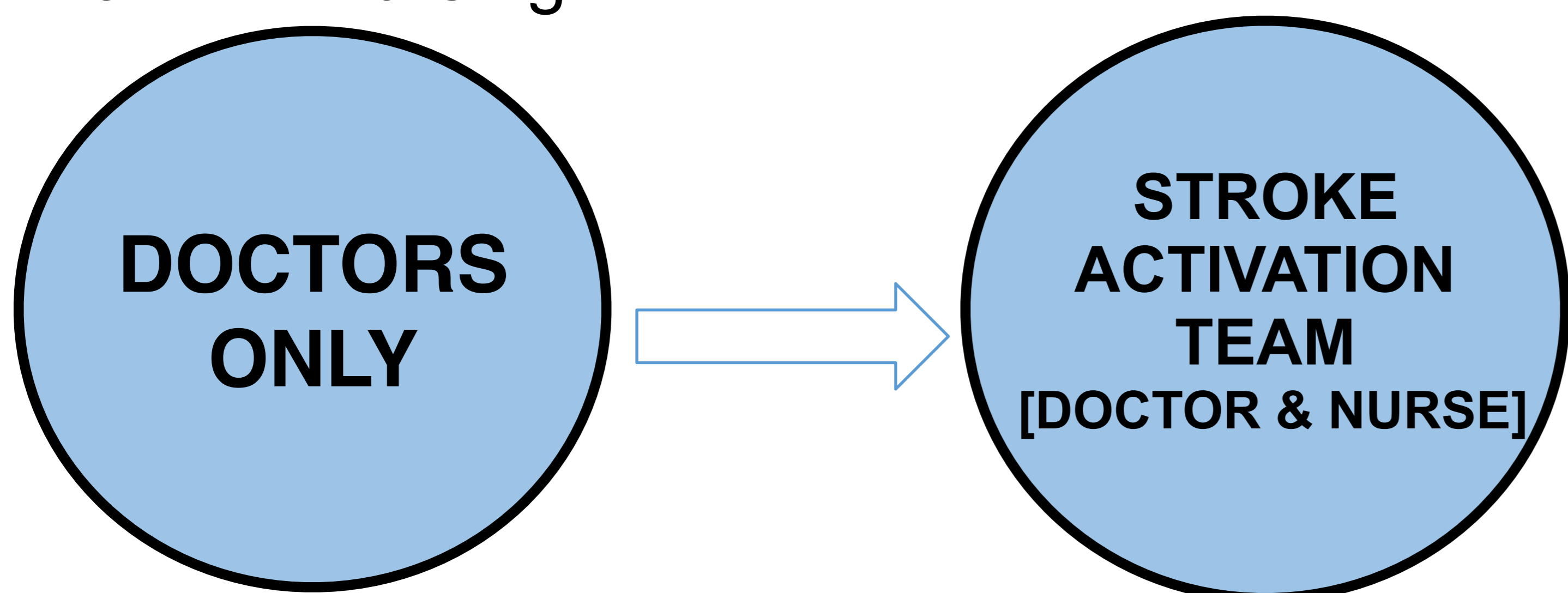


Introduction

Intravenous thrombolysis is a proven treatment in acute ischemic stroke. Earlier administration has been proven to improve outcome and thus emphasizes the importance of reducing the door-to-needle duration. Studies have shown that a multi-disciplinary team approach in stroke activation process is vital. The objective was to compare the door-to-needle duration before and after nurses' involvement in the stroke activation team at the Singapore General Hospital.

Methodology

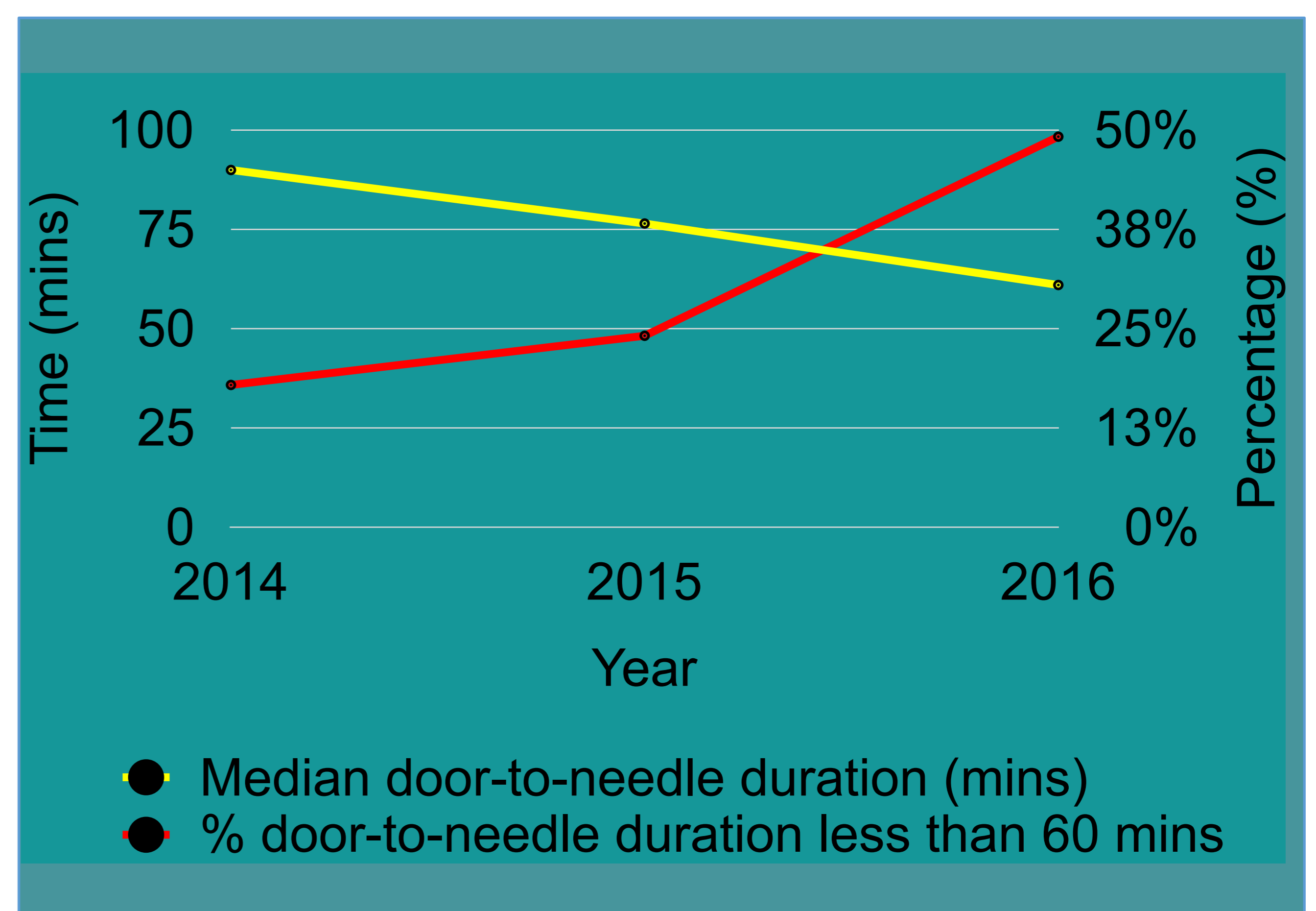
A new initiative of including specialised stroke nurses in the stroke activation team from 7am to 10pm daily was launched in January 2016. Prior to this initiative, only one neurology doctor attending to stroke cases in the emergency department (ED) with assistance from ED nursing.



This is a retrospective study with data of patients treated with IV thrombolysis from year 2014 to 2017 were reviewed.

The door-to-needle duration was calculated time from hospital arrival to the administration of the thrombolytic bolus.

Results



Door-to-needle duration less than 60 minutes improved from 17.9% to 49.2%

The median door-to-needle duration decreased from 90mins to 61mins

Conclusion

The door-to-needle duration in IV thrombolysis for acute ischaemic stroke improved with a dedicated stroke team including a dedicated stroke nurse, showing that a team effort is key to efficiency with hyperacute stroke care.