Thrombolysis in Stroke: Door to needle time and reasons for in-hospital delay

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AIMS ANDOBJECTIVES

- To estimate the door to needle time in patients eligible for administration of tissue plasminogen activator in acute ischemic stroke.
- To observe the sources and reasons for in- hospital delay in the procedure of administration of tissue plasminogen activator.
- To give recommendations for further improvement in the process.

RESEARCH METHODOLOGY

Type of study:
Descriptive Study

Target population:
Cohort of patients with acute ischemic stroke eligible for thrombolysis

Study location:
Ground floor, East wing, Max Super Specialty Hospital, Saket, New Delhi

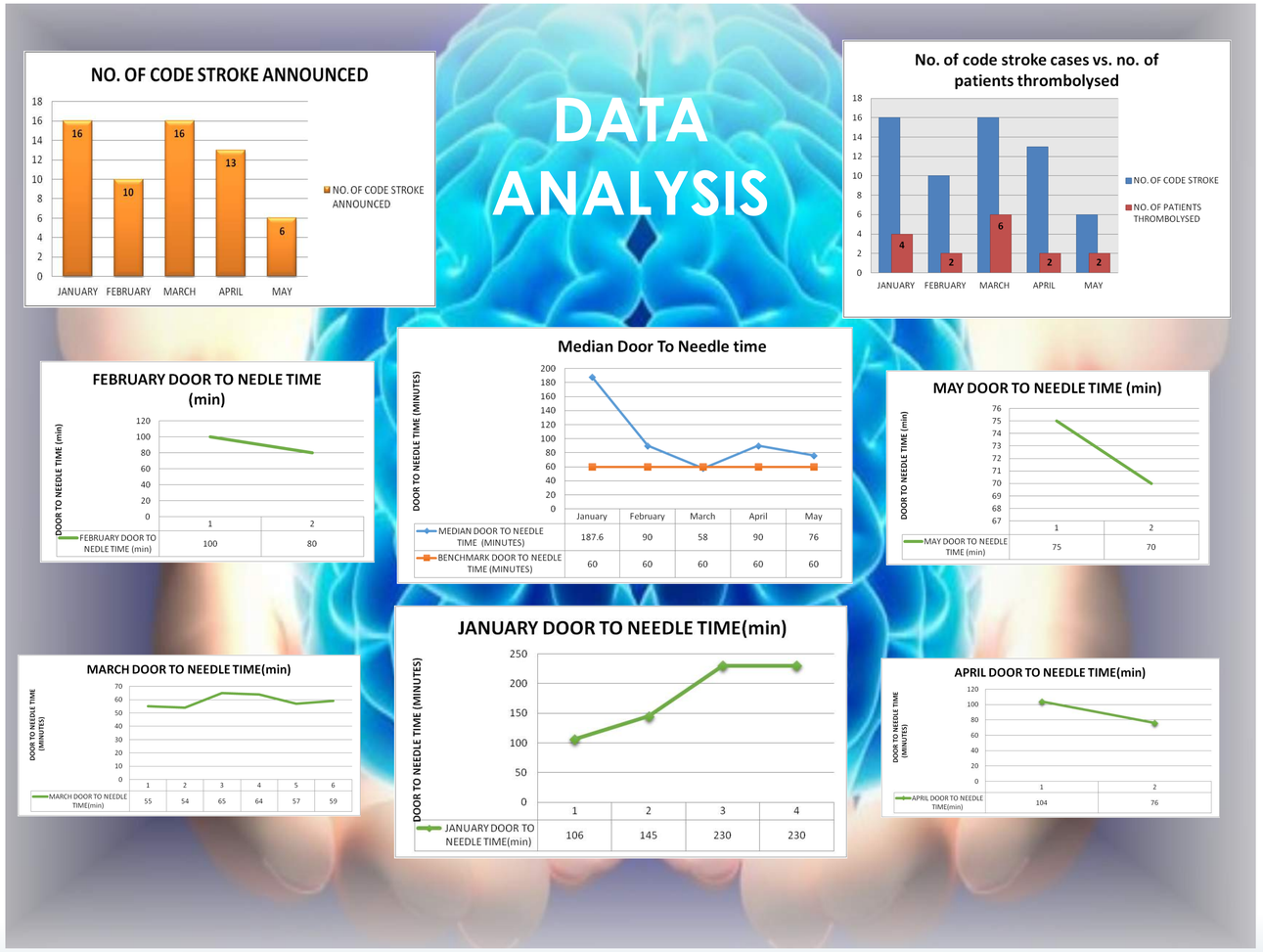
Duration of study:
3 weeks (May 1,2017- May 21,2017)

Study Tool:
Direct Observation of the Process using Hospital checklist interview of the medical staff.

Data collection:
Primary data collection (observation and interviews) and secondary data collection (review of past data of January2017 – April 2017)

INTRODUCTION:

A stroke occurs as a result of reduced blow flow to the brain which results in cell death resulting in altered brain function.
Tissue-type plasminogen activator (tPA) is a commonly used intervention for acute ischemic stroke patients functioning
The most important limiting factor for IVT administration is time because it has to be administered within 3-4.5 hours of symptoms onset of stroke. Goal is to achieve DTN of 60 minutes according to AHA



OBSERVATIONS AND FINDINGS:

The major causes which were observed and were stated by the medical professionals in an interview who deal with care of stroke patients for in-hospital delay are as follows:

- CT scan room occupied with another patient.
- Obtaining correct history of the patient.
- Explaining the risk of thrombolysis and obtaining the consent from the patient's family.
- Difficulties with drip or catheter insertion.
- Delay in making indent for drug and it's mixing.
- Tracking the location of the patient.
- Difficulty in weighing the patient.

RECOMMENDATIONS

Establish uniform flow-The emergency department should have designated rooms for code stroke so that the specialists from different departments reach the area on time.

As soon as code stroke is announced, the radiology department should also be notified so that the suspected stoke patient could be given priority and is not made to wait.

Counselling of the patient's family while the patient is undergoing CT and explaining them about the need for consent for thrombolysis.

Postponement of placement of foley's catheter ;this can be done after tPA is delivered.

If available and possible use CT table to measure the patient weight

tPA should be delivered in CT immediately after imaging.