

Door in- Door out Times: A Comprehensive Stroke Center Review

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INTRODUCTION

- Expeditious transfer of patients with acute ischemic stroke (AIS), large vessel occlusion (LVO) within the 24 hour window for mechanical thrombectomy (MT), and presenting to a primary stroke center (PSC) is vital to optimize their functional outcome
- Door-in-door-out (DIDO) represents the time of patient arrival to the PSC to the time of discharge from the PSC for transfer to a comprehensive stroke center (CSC)
- National goal for DIDO: 90 minutes

PURPOSE

- To analyze DIDO metrics at a large academic CSC to identify trends and process improvement opportunities with our spoke hospitals transferring AIS patients for MT

METHODS

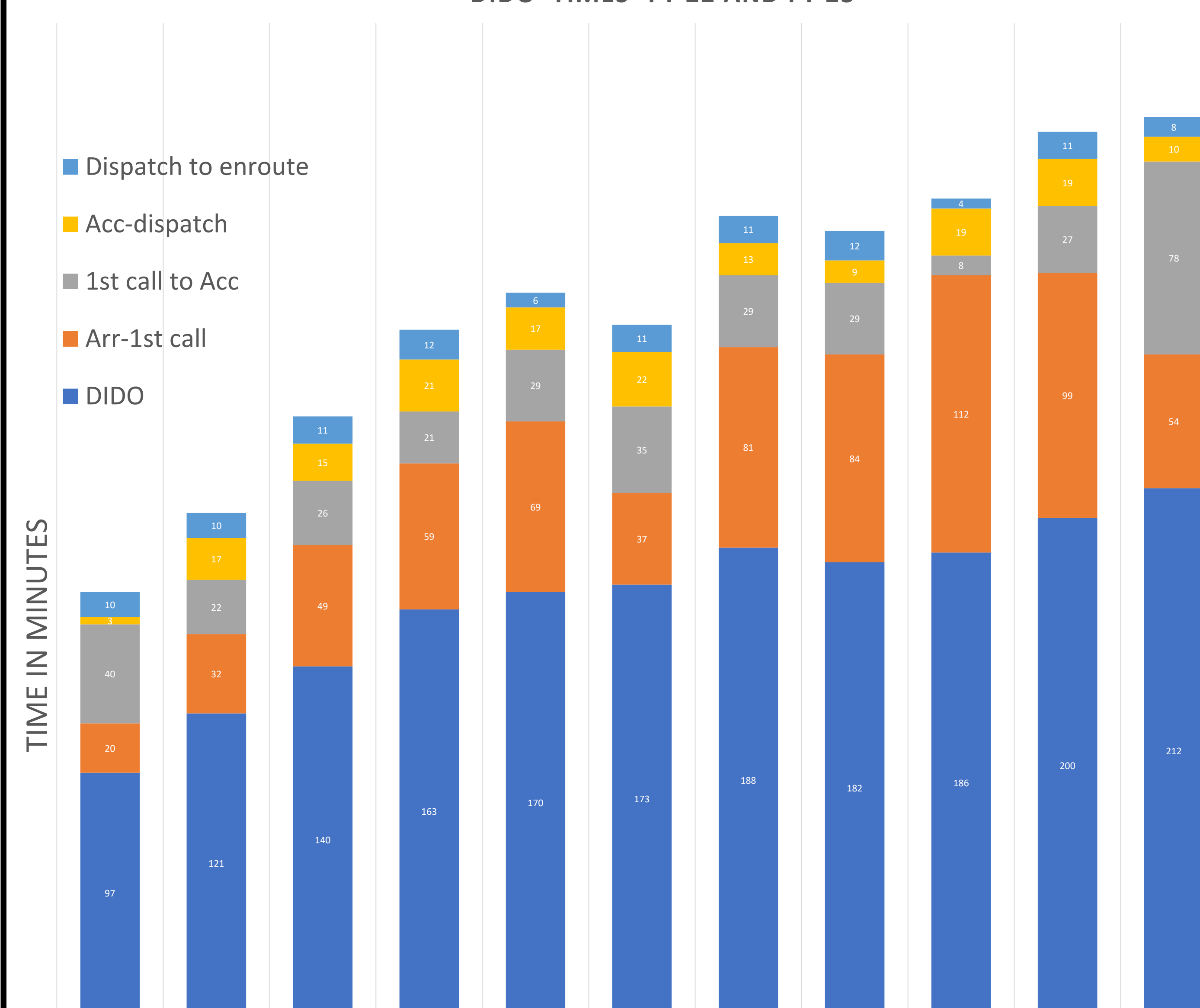
- The CSC MT database was queried to obtain time metrics for DIDO in consecutive transfer patients
- Inclusion criteria: included AIS cases with LVO transferred to the CSC for MT from FY 2022-FY 2023
- Excluded: Hospitals transferring < 5 cases, inpatient cases at transferring hospital, and cases with unavailable times
- Hospital DIDO times and their components (i.e. each step in the process) were grouped into quartiles and analyzed
- A survey was sent to PSC stakeholders to identify facilitators and barriers to meeting DIDO time goals.

RESULTS

- 9 /119 cases were excluded. A total of 110 cases across 11 hospitals were included in the final analysis
- The components of DIDO times that separated the fastest from the slowest were PSC arrival to 1st call to CSC and 1st call of PSC to acceptance at CSC . See Table below
- Distance from the CSC does not appear to be a factor in DIDO times, with the fastest being 13 to 68 miles away vs. 11 to 30 miles for the slowest
- In the survey results, 81% of participants had CSC bed availability as the top barrier, whereas 69% reported delays in transport time to PSC

	Best DIDO Hospital (N=22)	Longest DIDO (N=17)
Mean	132 min	205 min
Median	122 min	193 min
PSC arrival-to-1 st call	40 min	81 min
1 st call from PSC-to-acceptance at CSC	22 min	53 min

DIDO TIMES- FY 22 AND FY 23



IMPLICATIONS FOR PRACTICE

- DIDO times from PSCs to CSCs continues to be an opportunity for process improvement
- Only 5% in our sample met the DIDO metric goal of 90 minutes.
- Two areas of potential improvement include decreasing PSC time to 1st call and improving time of CSC acceptance (for which bed availability may contribute)
- Research has said that Stroke Systems of care should assess performance and identify steps for improvement

NEXT STEPS

- More process improvement projects are needed at the PSC and CSC to allow the patient more efficient process out of the primary facility and transported to the comprehensive center, and should consider addressing arrival to 1st call and 1st call to acceptance, at least in Maryland.
- At University of Maryland CSC, a potential process change is to have a virtual “ready” bed available at all times which could minimize the time looking for a bed and decrease time of acceptance

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Primary Stroke hospitals transferring to University of Maryland Medical Center

