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Comparative Study [J Stroke Cerebrovasc Dis](#). 2025 Feb;34(2):108179.

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The stroke meta-metric, Defect-Free Care, was maintained year-over-year within the Florida stroke registry during the COVID-19 pandemic

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Abstract

Background: Resource allocation for stroke care was impacted worldwide by the Coronavirus 2019 (COVID19) pandemic. Regionally, worsened stroke outcomes varied, however comparative year-over-year in-hospital performance metrics from the pandemic are unreported. Therefore, within the large Florida Stroke Registry (FSR), we assessed the pandemic's effects upon the American Heart Association (AHA) Get With The Guidelines (GWTG) ischemic stroke metrics and the meta-metric, Defect-Free Care (DFC).

Methods: From March 2017 to February 2021, FSR collected 146,593 patients with a diagnosis of ischemic stroke or TIA (31,940 between 2017-2018; 35,086 between 2018-2019; 39,722 between 2019-2020; 39,845 between 2020-2021). FSR evaluated DFC, intravenous thrombolytic (IVT) use, endovascular therapy (EVT) use, and Door-To-Needle (DTN), Door-To-Computed Tomography (DTCT), and Door-To-Puncture (DTP) times.

Results: Pre-pandemic versus pandemic stroke patients' demographics were similar (49.0 % vs. 48.6 % female, age 70.7±14.3 vs. 70.5±14.1 years, 64.0 % vs. 65.3 % white, 18.6 % vs. 18.8 % black, 17.4 % vs. 16.0 % Hispanic). Pandemic strokes, versus the immediate year pre-pandemic, were significantly more severe (median NIHSS 4 [IQR 8] vs. 3 [7]), utilized emergency medical services more (59.2 % vs. 57.6 %) and were more likely to receive EVT (8.0 % vs. 7.0 %). IVT use, and DTCT and DTP times were unchanged. The meta-metric DFC improved year-over-year, albeit slower during the pandemic [2017/18-2018/19: 70.7 % to 74.9 % (+4.2 %); 2018/19-2019/20: 74.9 % to 82.1 % (+7.2 %); 2019/20-2020/21: 82.1 % to 85.2 % (+3.1 %)].

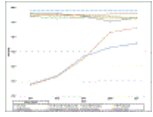
Conclusions: Despite pandemic challenges, the stroke meta-metric DFC improved, albeit more slowly than pre-pandemic years. In this large statewide registry, pandemic patients received EVT more, potentially due to more severe stroke presentations. Stroke care infrastructure preparedness for future pandemics is warranted.

Keywords: COVID19; Ischemic stroke; Metrics; Outcomes; Pandemic.

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Graph 2. The quarterly trends of the...

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