



1200 N. Telegraph Road. Bldg. 36E, Pontiac, Michigan 48341
Telephone: 248 975-9704 Fax: 248 975-9723 Website: www.ocmca.org

OCMCA Stroke Systems of Care Special Study January 1, 2019 to March 31, 2019

May 9, 2018

Kathy Wahl, BS, MSN, RN
Director
Michigan Department of Health & Human Services (MDHHS)
Bureau of EMS, Trauma, & Preparedness (BETP)
Division of EMS and Trauma
P.O. Box 30207
Lansing, MI 48909-0207

Dear Ms. Wahl:

Please allow this letter to serve as a quarterly report of the Oakland County Medical Control Authority's (OCMCA) Stroke Systems of Care Special Study to the State QA Task Force and the Bureau of EMS, Trauma, & Preparedness.

As indicated in our previous quarterly reports to the QA Task Force, the OCMCA has developed a case review process for this Special Study that includes detailed analysis of the FAST-ED Stroke Severity Scale Scoring Checklist, the EMS radio report to hospital, the patient care report (PCR) and the Hospital Outcome Data Sheet of each case included in the study. Each of the resources are objectively assessed to identify the strengths, weaknesses and lessons learned of each case.

Quarter 1 - 2019 study findings:

During this quarter there were a total of six (16) patients that were determined to have a differential diagnosis of stroke by the Bloomfield Township Fire Department. The OCMCA PSRO Committee and QI staff has reviewed the data of each case.

- **Total number of cases: 16**
 - Ischemic strokes: 7 (44%)
 - Small vessel ischemic strokes: 5 (71%)
 - Large vessel ischemic strokes: 2 (29%)
 - TIA: 3 (19%)
 - Hemorrhagic strokes: 2 (12%)
 - Stroke mimic: 4 (25%)
- **Accuracy of stroke identification: 12/16 (75%)**
 - Out of all 16 cases that included a differential diagnosis of stroke, as determined by BTFD paramedics, 12 (75%) were confirmed to be strokes by the receiving stroke center.
- **FAST-ED accuracy rate: 12/12 (100%)**
 - Out of the 12 cases that included a patient with a confirmed stroke, all 12 (100%) were assigned a FAST-ED score by EMS that correlates with the NIHSS score that was assigned by the stroke center physician(s).
- **Mechanical thrombectomy (MT) rate: 0/16 (0%)**
 - No patient's received MT during Quarter 1 of 2019.
- **tPA administration rate: 2/16 (12%)**
 - 2 out of the 16 ischemic stroke patients received tPA.
- **Patient transfer rate: 0/16 (0%)**



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Sharing study findings:

The OCMCA has continued to make available all related study findings with the Bloomfield Twp Fire Department (BTFD), Beaumont Hospital Royal Oak and St. Joseph Mercy Oakland. The BTFD continues to share all outcomes with the applicable EMS personnel for educational purposes. In addition, both hospitals continue to review the outcomes and provide feedback. It should be noted that all participants have been very thorough and thoughtful throughout this study. It has been a pleasure working with all entities involved.

On May 3, 2019 the OCMCA and Saint Joseph Mercy Oakland Hospital hosted the 2019 OCMCA Stroke Conference where we shared our stroke education, 2018 study findings, and made stroke system recommendations based on our experiences related to the OCMCA Stroke Special Study. See document for **2018 OCMCA Stroke Conference Data Presentation** details.

Next steps:

The OCMCA is currently evaluating multiple requests to expand the study to include additional LSAs and OCMCA hospitals. These requests are being reviewed and a plan to expand the study is currently in the development stage.

The OCMCA has developed stroke education resources mandated for all OCMCA agencies to be completed by the end of October, 2019. This education consists of 4 modules:

- The Anatomy and Pathophysiology of Stroke
- Stroke Center Levels of Care
- Large Vessel Occlusion (LVO) Strokes
- Stroke Protocol Review

Each of these stroke modules will be available in a 30-minute voiceover PPT to all OCMCA agencies and their EMS personnel in May 2019

American CME (A/CME) has produced a 30-minute FAST-ED course that was sponsored by the American Heart Association. A/CME is currently seeking funding for the production of the remaining 3 courses to strengthen the stroke chain of survival by supporting pre-hospital stroke identification, treatment, documentation, and communication.

Please contact the OCMCA with any questions.

Sincerely,

Steve McGraw

Steve McGraw, DO
EMS Medical Director
Oakland County Medical Control Authority