



Genesee County Medical Control Authority (GCMCA)

2017 Annual Report

June 7, 2018



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GCMCA Background

In 1990 P.A. 368 of 1978 as amended, the responsibility of oversight for emergency medical services (EMS) is placed on the hospitals within a community through entities known as medical control authorities (MCAs). Since its implementation the GCMCA has served Genesee County as the statutory body established to meet the expectations of the state law.

Through a protocol driven process the GCMCA provides direction on the dispatch, triage, treatment, transport, and system operation of the EMS system. This is done with an open, inclusive, and transparent process that includes all sectors of the pre-hospital patient care structure.

Mission Statement

The Genesee County Medical Control Authority (GCMCA) will strive towards an integrated, cooperative, and quality-based pre-hospital system designed to provide timely and professional services to the communities in which it serves.

Funders

The GCMCA is exceedingly grateful for the financial support of our operational budget from the following organizations:

*County of Genesee
Genesys Regional Medical Center
Hurley Medical Center
McLaren-Flint*



EMS Agencies Currently Serving Genesee County

We are grateful to have many high quality EMS agencies serving Genesee County. Many of these organizations serve the entire county and some of them specific local jurisdictions. At the time of the printing of this document we have twelve (12) MFR agencies, seven (7) ALS transporting agencies, and one (1) ALS first response agency. The following are the EMS agencies currently serving our community:

Medical First Response Agencies:

Argentine Township Fire and Rescue
 Atlas Township Fire Department
 Bishop Airport Fire and Rescue
 Davison Richfield Fire Department
 Fenton City Fire Department
 Fenton Township Fire Department
 Flint Fire Department
 Forest Township Fire Department
 Gaines Township Fire Department
 Linden City Fire Department
 Montrose Township Fire Department
 Mundy Township Fire Department

ALS Transporting Agencies:

Elite EMS
 Medstar Ambulance
 Mobile Medical Response
 Patriot Ambulance
 STAT EMS
 Swartz Ambulance Service
 Twin Township Ambulance

ALS First Response Agency:

Genesee County Sheriff's Office Paramedic Division

GCMCA Board and Committee Membership

Board

Austin Burgess, MD
 Josh Newblatt, DO
 Ray Rudoni, MD
 John Stewart
 Chris Swanson

Advisory

Committee

Alex Boros
 Austin Burgess, MD
 Bob Cairnduff
 Jennifer Carpenter, RN
 Carrie Edwards
 Tim Jones
 Joe Karlichek
 Mike McCartney, RN
 Joshua Newblatt, DO
 David Rapacz
 Ray Rudoni, MD
 Casey Tafoya

Protocol

Ed Blight
 Alex Boros
 Austin Burgess, MD
 Sara Dubey
 Steve Henson
 Tim Jones
 Joe Karlichek
 Harold McNew
 Joshua Newblatt, DO
 Ray Rudoni, MD
 Casey Tafoya

Education

Ron Andersen
 David Benn
 Alex Boros
 Austin Burgess, MD
 John Chalcraft
 Joe Hyrman
 Harold McNew
 Joshua Newblatt, DO
 Chris Patrello
 Ray Rudoni, MD
 Todd Witthuhn

PSRO

Amy Benko
 Alex Boros
 Austin Burgess, MD
 Sara Dubey
 Tim Jones
 Joe Karlichek
 Jason MacDonald
 Joshua Newblatt, DO
 Ray Rudoni, MD
 Casey Tafoya
 Marta Wright

Appeals Review

Garrett Fairchild
 Patrick Hawley, MD
 Joe Hyrman
 Gina Murphy
 Kieth Rumbold



System Demographics – 2017

The following provides some basic information regarding the EMS system in Genesee County.

Total 911 EMS Calls Dispatched:

69,407

Tier 1 Calls:

37,202

Tier 2 Calls:

32,205

Total Individual EMS Providers:

902

MFR

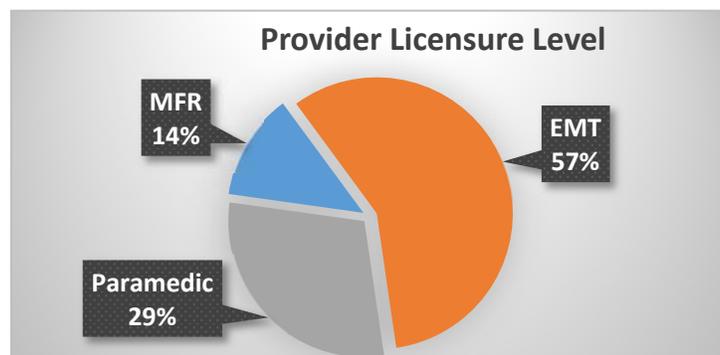
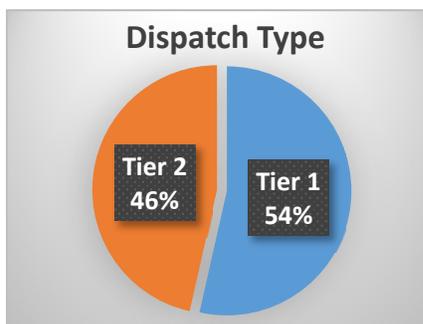
128

EMT

509

Paramedic

265



Licensed Vehicles:

Note that an agency can license a unit as BLS and upgrade them to ALS as personnel are available, so the number of ALS transporting units on the road and available to respond at any given time is much higher than the number licensed

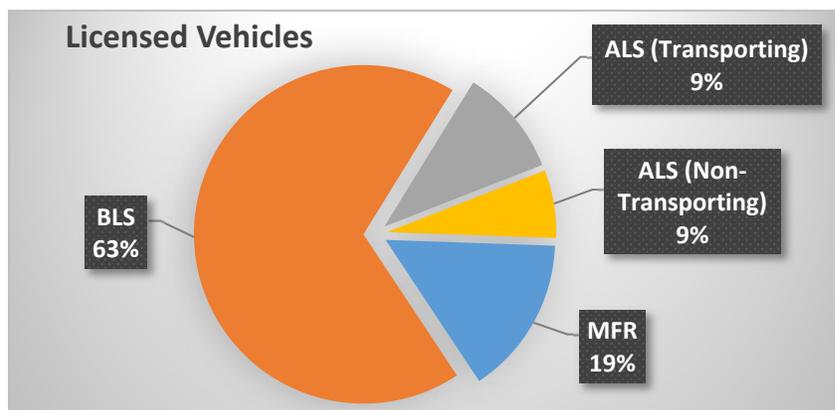
Total: **160**

MFR: **30**

BLS: **102**

ALS (Transporting): **14**

ALS (Non-Transporting): **14**



Protocols

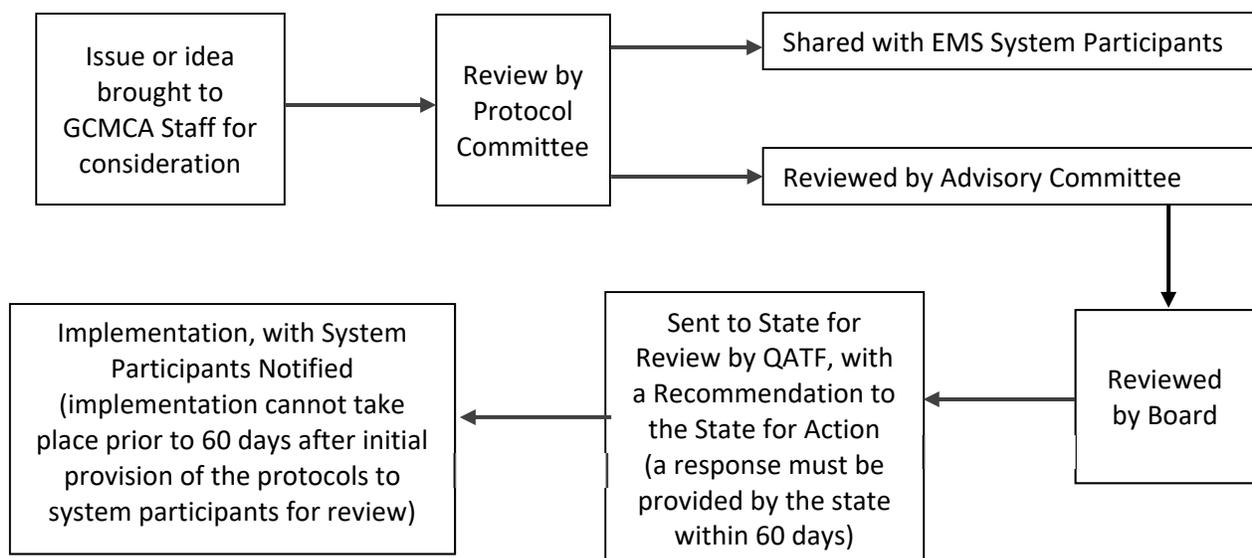
The GCMCA is a protocol-driven organization, with all protocols receiving the approval of the State of Michigan and having the force of law. The protocol adoption process involves reviewing system concerns; researching operational models and new treatment modalities; writing protocols language; having multiple committees review proposed changes; and shepherding the changes through the approval process.



In 2017 the GCMCA reviewed thirty-eight (38) separate issues for potential protocol changes resulting in Board approval of changes to twenty-four (24) protocols. The organization also began the process of reviewing changes to state protocols as part of the state's triennial protocol update process, with full adoption and implementation planned for 2018.

As outlined below, the approval process involves a review by multiple committees, the GCMCA Board, and the state. In addition, all protocols are shared with system participants, which provides an opportunity for input by individuals and agencies that do not serve on one of the GCMCA committees. Once the approval process is completed the protocols are emailed to all system participants and posted to the GCMCA website. EMS agencies are responsible for providing education to EMS providers on protocol changes.

Protocol Approval Process



Individual Provider Credentialing

In order to operate as a Medical First Responder (MFR), Emergency Medical Technician (EMT), or Paramedic in Genesee County, additional training, testing, and verification is required. Those working for an MFR agency receive annual core competency training in four categories: airway, trauma, vital signs, and CPR. For those MFRs and EMTs working for an ALS agency they are required to receive AHA CPR certification and obtain additional certifications in approved pediatric and trauma courses within six months of first beginning employment in the county.

In addition to the above certifications, paramedics in Genesee County are required to be current in AHA ACLS and go through an extensive 12-lead training and testing process focused on recognition of ST-Elevation Myocardial Infarctions (STEMIs), which result in the activation of hospital Cath Labs from paramedic interpretation of the 12-lead. Additional detail on that program will be discussed later in this report.

By participating in this process EMS providers are issued an identification badge that lists their name, GCMCA-approved level of operation, photo, and state license expiration date. These badges are to be renewed when the state license is renewed and failure to do so within sixty days of expiration will result in the suspension of the individual's ability to operate in the county.



In 2017 we had 409 EMS providers complete this process, being issued new or renewed badges. There were nine (9) individuals who did not complete the process in a timely manner and had their privileges to operate suspended.

Medical Direction

All MCAs are required by state law to have a physician medical director who is board certified in emergency medicine. Our system rotates this responsibility between the three hospitals every two years. Dr. Joshua Newblatt (Hurley) is the current GCMCA Medical Director with a term expiring on September 30, 2018. We are truly grateful for the commitment and dedication of all of our health care professionals, especially the willingness of our physicians to take on this immense responsibility.



In addition to providing routine input on clinical questions from providers, agencies, and staff, the medical director serves as a member of the Board and all committees. On a monthly basis all EMS runs involving patients with STEMIs, pediatric cardiac arrests, cricothyroidotomies, and transfers involving a decline in status are reviewed by the medical director. Detailed data on these cases will be provided under the PSRO section of this report.

Professional Standards Review Organization (PSRO)

The PSRO is a statutorily-established peer review entity that is responsible for quality improvement efforts of a MCA. All activities of the organization are confidential and protected by law. The GCMCA PSRO is an exceedingly active group addressing a variety of quality issues. On a monthly basis the group looks at complaints submitted by patients, hospitals, EMS agencies, 911, and other system participants; reviews studies of specific operational and treatment topics; meets with agencies and providers to address protocol compliance concerns; and makes recommendations to the Advisory Committee and Board for disciplinary actions if other avenues to address concerns are unsuccessful.

In 2017 the PSRO reviewed the following studies and other systemic issues:

- Annual Data Review
- BLS & MFR Naloxone Cases (2x)
- Cardiac Arrest Study¹
- Cricothyrotomy Case Review & Comparison
- Critical Care Transfer Case Review
- False Cath Lab Activation Causes
- Genesys/GISD Study Review
- Naloxone Usage – 2010-16
- Pediatric Arrest Fractiles¹
- Scene Time Study¹
- Seizure Study¹
- STEMI Lights & Sirens Responses
- Tourniquet Usage Study¹
- Unit Availability Study¹
- 12-lead Application – Time to Lead Placement¹
- 12-lead Refresher Test Result Overview

¹Reports available for public review upon request.



Specific Routine Run Records Reviewed

The medical director reviewed fourteen (14) pediatric cardiac arrests in 2017. Of those, 64% were patients less than one year of age and 93% were children less than four years of age. In addition, the following were specific issues reviewed: seventy-eight (78) STEMI patients with hospital Cath Lab activation (see additional information on this issue later in the report); eleven (11) EMS vehicle accidents requiring a police report while the unit was actively involved in an EMS call; one (1) transfer case where the patient's status declined; six (6) cricothyroidotomies; and two (2) reported assaults on EMS providers.

Incidents and Disciplinary Actions

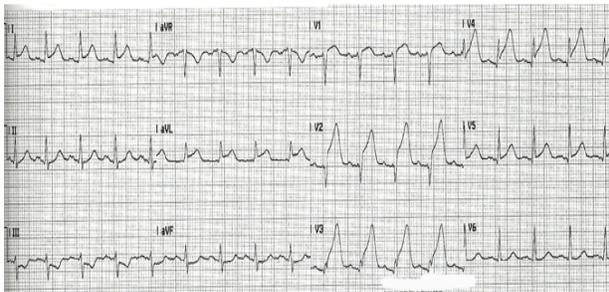
In 2017 the GCMCA PSRO received seventy-eight (78) incidents/complaints regarding potential protocol violations related to various operational and treatment protocols. In order to complete a review of these concerns each was investigated by having the individual or agency involved submit documentation that could include run records, dispatch records, radio recordings, written statements from those involved, or interviews with providers or agency representatives. Once the PSRO has completely reviewed all of the documentation they will either find a protocol violation or not. If a protocol violation is determined those found at fault could receive any number of actions including trending, education/retraining, reprimand, probation, suspension, or recommendation to the state that a license be revoked. Of the 78 incidents/complaints reviewed, 28 (35.9%) were found to be protocols violations.



The goal of the GCMCA and the PSRO is to address quality concerns and protocol non-compliance with education and counseling. However there are some cases that require probation or suspension. In 2017 the PSRO recommended, and the GCMCA Board approved, suspensions of forty-nine (49) EMS providers and one (1) EMS agency. In addition the same agency that was suspended was also placed on probation. The individual suspensions were for various reasons and are as follows: ten (10) – ID badge renewal; twenty-six (26) – pediatric and/or trauma certification non-compliance; eleven (11) – 12-lead training and testing non-compliance; and two (2) other protocol violation issues.

12-Lead Program

Genesee County hospitals have been activating their Cath Labs since 2014 from the field based upon the paramedic's interpretation of the 12-lead ECG. This program was put into place after the establishment of an extensive training and testing process for all paramedics operating in the county.



Every medic is required to complete an initial STEMI recognition program that includes a one-hour agency training, a four-hour online training, and a two-hour face-to-face training with Dr. Michael Jule. At the completion of the

training they must pass a forty question test that includes multiple choice questions and correct identification of 12-lead findings. Every three years medics are also required to pass a twenty question refresher 12-lead test. In 2017 forty-four (44) new medics to the county completed this training and fifty-eight (58) medics took the refresher test.

In 2017 paramedics activated hospital Cath Labs seventy-eight (78) times. Each 12-lead was reviewed by the GCMCA medical director to determine if the finding was correcting. Of those activations, 79.5% were correctly activated.

Education

The GCMCA has an active Education Committee with dedicated volunteers. The role of the committee is to provide guidance and recommendations for educating providers on protocol changes and new areas of EMS treatment and operations.

The following is a list of issues that the Education Committee provided direct education/information, guidance, objectives, outlines, or assistance for training providers and agencies:

- Abuse Reporting
- Age-Appropriate Intubation
- Direct to CT Hand-off for Stroke Patients
- Epinephrine Special Study
- LVADs
- MI-MEDIC Cards
- New Drug Box Transition
- Online Medical Control Communication
- Pharmacy Documentation
- PICC Line Access
- Safe Delivery of Newborns
- Seizure Treatment
- Stroke Alert Notification
- Taser Barb Removal

The committee also reviewed the online protocol test required of new and renewing providers and updated it; reviewed and evaluated critical care training programs for possible inclusion in our system; provided guidance on the use of newly acquired CPR meters; and assisted in the formation of GCMCA social media activities (look for us on Facebook, Instagram, and Twitter).

The GCMCA produces a bi-monthly newsletter that focuses on hot topics in the EMS profession, changes to protocols, important quality study findings, and games and trivia with prizes to the winners. This newsletter is shared with EMS providers and agencies on our website, via social media, and through our email distribution list of nearly one thousand contacts. This distribution list is also used for dissemination of flyers and educational materials for non-GCMCA CE programs for the benefit of our providers, as well as updating the EMS community on important news that affect them.

Finally, the GCMCA maintains an education consortium agreement with Genesys and McLaren-Flint's EMS education programs. This agreement provides GCMCA educational support for CEs and course leadership by these two programs. We are extremely grateful for their commitment to EMS and our organization.



Disaster Preparedness

While major disasters are rare, but as we have seen around the country and world, being unprepared for the unthinkable can make a terrible situation much, much worse. As part of the public safety system the GCMCA focuses a considerable amount of time in preparation for natural or man-made disasters.

GCMCA staff are active participants in the Region 3 Healthcare Preparedness Network, attending meetings, participating in drills and trainings, and holding leadership positions in the organization. Our organization also has responsibility for the dissemination and tracking of a large quantity of equipment issued by the Region and provided to our agencies.



Locally, the GCMCA is involved in the Genesee County Health Department's Health Threat Preparedness Committee; the Emergency Management Office's Local Planning Team; reviews and updates our own Mass Casualty Incident plan; and has assisted in the organization, coordination, and management of the annual county-wide disaster exercise.

Local Involvement

In addition to previously mentioned committees and groups that the GCMCA participates with, staff is actively involved with several local organizations to support their work and provide an EMS perspective. The GCMCA Executive Director is a voting member of the Genesee County 911 Consortium's Advisory Committee, serves on the Mott Community College's EMT Academy Advisory Board, the Genesee County Child Death Review Committee, and the University of Michigan's Stroke Readiness Project.



GCMCA staff also speaks to local groups on EMS issues, including EMT initial education classes and local community groups, providing information on the role and function of a MCA in the EMS system. If your organization is interested in learning more about the Genesee County EMS system and would like a GCMCA staff member to attend a meeting, please feel free to contact us.

Regional Involvement

Regional activity has been an important part of the GCMCA's operation since first being involved in the creation of the Southeast Michigan Regional Protocol Committee and drug box system in the late 1990's. That committee continues to meet regularly making changes to protocols and managing the drug box system. Last year the Region undertook the significant task of changing over to a new drug box with funding from the state. This involved the purchase, preparation, and issuing of drug boxes to all hospital pharmacies and EMS agencies in the nine-county Region, as well as the disposal of the old boxes. Early feedback has been positive, with the boxes being lighter and more durable.



In recent years the growth of regional organizations has been spurred by efforts at the state level. GCMCA staff has been involved with the Region 3 Trauma Network from its infancy, serving on the Board; Advisory Committee; the Triage, Transport and Destination Subcommittee; and the Application and Work Plan Subcommittee.

In 2015 the state established Regional MCA Networks (RMCAN), which included state funding to support regionalization projects. As Genesee County has interests in two different regions, GCMCA staff has been an active participant in both the RMCANs of Region 2 North and 3. These groups have afforded us the opportunity to strengthen previously established relationships with our counterparts in these regions and provided funding for projects that will improve and benefit our county's EMS system.

State Involvement

Having a strong connection to state EMS issues has proven beneficial for both our local MCA and offers support to our colleagues in the state by providing leadership in various areas. The GCMCA Executive Director has served as a member of the state's statutory advisory body for EMS issues since 2004 - the EMS Coordinating Committee (EMS CC). In addition to being a regular attendee to the group's meetings, GCMCA staff serves on several of the EMS CC's subcommittees, and is chairperson of the MCA and Legislative subcommittees.



The GCMCA is also involved with and supportive of other state-wide activities. MCAs around the state are able to join the Michigan Association of EMS Systems, which is a trade association for MCA staff in the state. This group meets to share ideas, best practices, and provide input on state issues being discussed at the EMS CC, where the association has a voting member. GCMCA staff has previously served in leadership positions with this organization.

Financial Status

The GCMCA is grateful for the financial support of Genesee County through their county-wide EMS millage as well as the three Genesee County hospitals. The 2016-17 fiscal year operating budget was \$307,846, and we have been able to maintain hospital contributions at the current level since 2004. The organizations fund balance at the end of the fiscal year, which concluded on June 30, 2017, was \$121,337. This is slightly less than the six months of reserves recommended for non-profit organizations.



Thank You!

Thank you for taking the time to review this report. If you have any questions about any items found here, or if you need anything related to the Genesee County EMS system, please feel free to contact us.

Contact Information

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