MCFRS Monthly Leadership Briefing

Division of Operations

Emergency Medical Services Section

August _____ , 2017

Assistant Chief Barry Reid

MCFRS Management Team Briefing

Critical Elements

- Clinical Documentation Improvement (CDI)
- Triage Proficiency
- eMeds
- Medical Protocols
- MCNIC[3]

MCFRS Operations Division EMS Section Monthly Dashboard

Month: JUNE   **Year:** 2017

STEMI VS NON STEMI

STEMI VS NON STEMI	MONTH	YTD
Total 12 Leads performed	1604	17142
- STEMI	24	295
Avg Time on Scene (min)	16:41	
Non-STEMI cardiac ch. pains	304	3420

Special QA Topic

Measure	Unit	Unit	
STEMI <15 on scene			82.40%
STEMI E2D <30			82.40%
Stroke <15 on scene			76.90%
Stroke E2D <30			73.10%
Stroke Avg scene time			12:24

QA CASES

QA CASES	Month	YTD
LEVEL1	0	1
LEVEL2	2	36
LEVEL3	12	92
ALS	10	96
BLS	5	32
Sustained	3	55
Not Sustained	2	18
Currently Open	39	
QI Reports Reviewed	284	3034
QA Reports Reviewed	30	1217
TOTAL Reviewed	314	4251

Notes:
A708: 312; M725: 258
Narcan admin 46 times to 31 different patients

EPCR OUTCOME SUMMARY

EPCR OUTCOME SUMMARY	Month	YTD
Total Epcr completed	7086	84121
- Patient Transported	6002	70807
- Patient Refusal	466	5986
Working Codes	57	445
- Pre-hospital Saves	17	236
- Resuscitation Terminated	24	318
ALS/BLS Downgrade	239	2254
Missing ePCRs	1	55
Billing compliance %	99	
Intubations performed	31	398
I/Os performed	29	393

CUSTOMER SERVICE SURVEYS

Program Measure	County-Wide Average YTD
"Our People"	
Quick & Efficient	Temporarily
"We want to help"	Suspended
Crew Friendly	
Took Care of you	
Care of belongings	
Explained care	
Anticipated Needs	
"Our Service"	
Receipt of 911 call	
Response time	
Fire Extinguishment	
Medical treatment	
Ambulance transport	
Other service (specify)	
Overall Average	

OPERATIONS

OPERATIONS	Month	YTD
Echo Dispatches	82	894
ALS -2 Dispatches	318	4298
Average Cycle Time (minutes)	60	
Number of transport units above 150 calls	10	141
Number of transport units above 200 calls	23	112

Alerts

Alerts	Number	Hours	Avg
Hosp. Red Alerts	13	187.91	14.5
Hosp. Yellow Alerts	55	266.29	4.8
Hosp. Reroutes	5	9.81	2.0
Total Hosp. Alerts	73	464.01	6.4
Blue Alerts	0	0	#DIV/0!

NEW MEDICS

NEW MEDICS	Month	YTD
Career	0	22
Volunteer	0	8

Residents	Career	Vol
#Residencies 1st 3 months	9	17
#Residencies on extension	0	0
In Medic Class or pending residency	Career 0	Vol 2
Medics in Recruit Class# (RC)	0	YTD
ALS Certification Dropped	2	20
# Roster Medic Vacancies	17	

INCUMBENT MEDICS

INCUMBENT MEDICS		#
Career	MF and Below	197
	LT & CA	77
	Non-Ops	4
Volunteer		90
TOTAL		368

	Mth	YTD
Promotions Processed	5	135
Transfers Processed	39	500

RECORDS REQUEST

SUBPOENA		Reports			
Records	Pers	EMS	Fire	MONTH	
49	7	90	38	184	
			YTD →	2216	

	MONTH	YTD
New Users >4 Responses	8	201
Current Users	14	118
Total Monthly Super Users	15	312
Total SuperUser Responses	29	1,591
# of Homeless Individuals	11	89
Homeless Responses	88	748
% Homeless Responses	47	
Field Referrals to APS/A&D	8	123
Housing (Hoarding/Disrepair)		3
Behavioral Health Referrals	3	18
NH Ombudsman Referrals		22

Super Users

QA Cases

LEVEL 1 The most severe level, including an incident that results in the worsening of a patient's condition or causes death, the provider is identified as being a risk to their patients, MCFRS and/or themselves.

LEVEL 2 An incident which may include protocol violations or prohibited conduct as defined by COMAR and which does not meet criteria for a Level 1

LEVEL 3 A less severe violation which contains no criteria from Level 1 or 2 and can be handled with immediate corrective action.

CUSTOMER SURVEYS   1-5

"Our People"   **"Our Service"**

5 Strongly Agree — Very Satisfied
4 Agree — Satisfied
3 Neither — Neither
2 Disagree — Dissatisfied
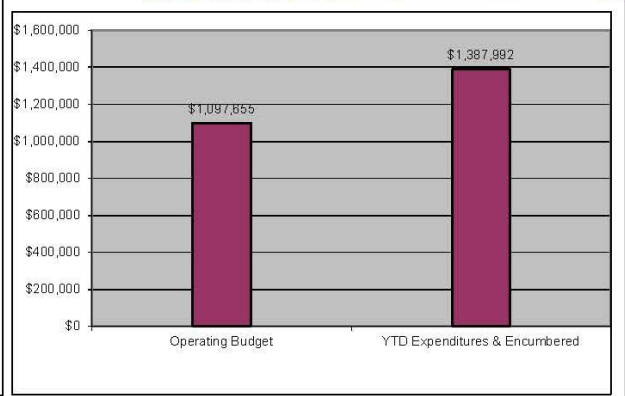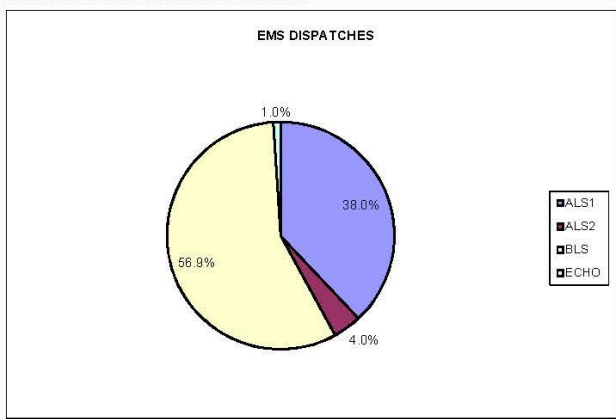**1** Strongly Disagree — Very Dissatisfied

Hospital Alert Status

Red The hospital has no ECG monitored beds available. These ECG monitored beds will include all in-patient critical care areas and telemetry beds.

Yellow The emergency department temporarily requests that it receive absolutely no patients in need of urgent medical care. Yellow alert is initiated because the Emergency dept is experiencing a temporary overwhelming overload such that priority II and III patients may not be managed safely.

ReRoute An ALS/BLS unit is being held in the emergency department of a hospital due to lack of an available bed.
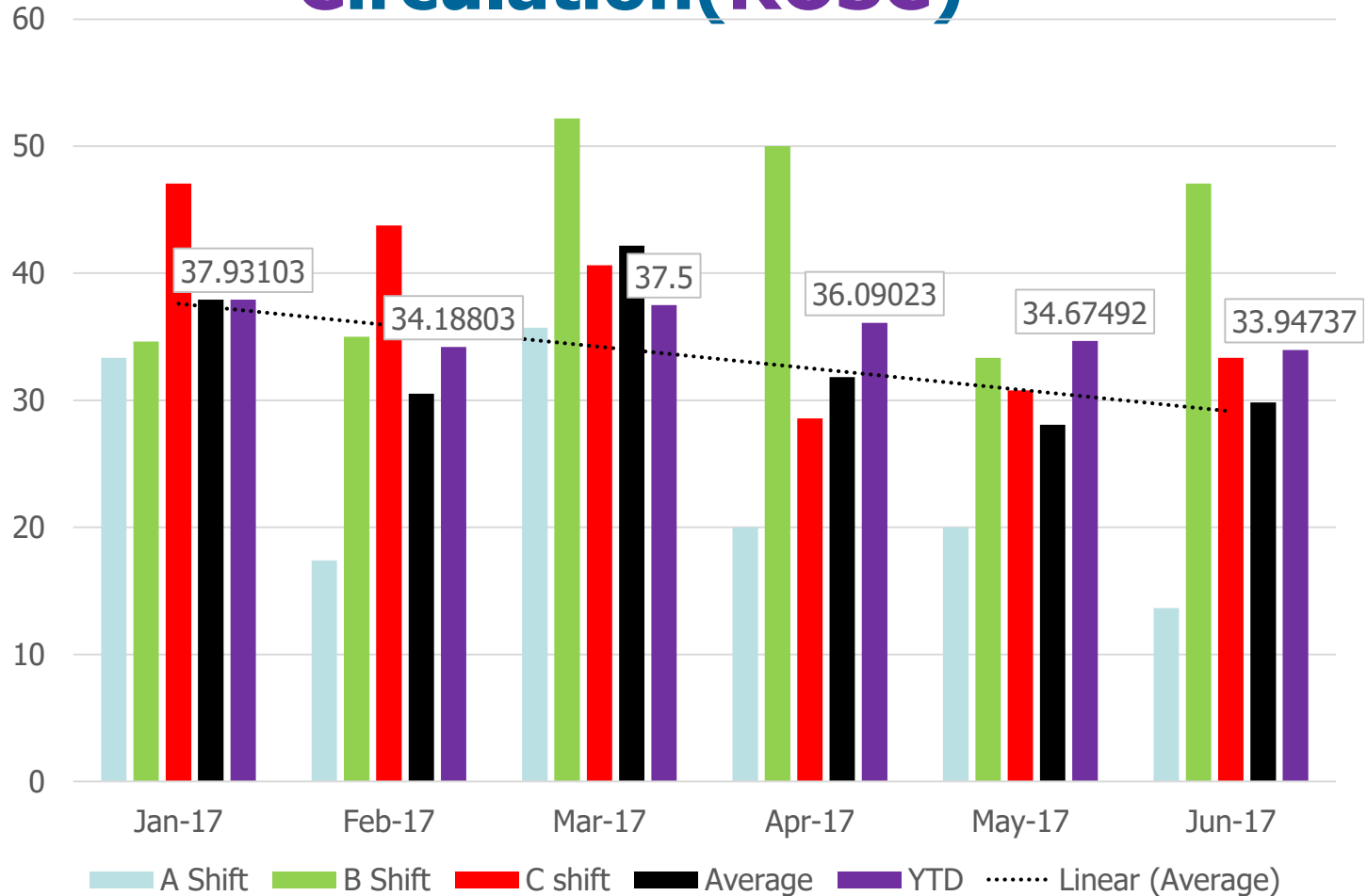
Blue When an EMS jurisdictional system is temporarily taxed to its limits in providing pre hospital care and ambulance transportation due to extraordinary situations such as snow, icing, flooding or other circumstances that contribute to high demand for ambulance service (suspends yellow).

EMS DISPATCHES

Pie chart — ALS1, ALS2, BLS, ECHO: 1.0%, 38.0%, 4.0%, 56.9%

Bar chart — Operating Budget $1,097,855; YTD Expenditures & Encumbered $1,387,992

Cardiac Resuscitation Rates
% Return Of Spontaneous Circulation(ROSC)

Stroke Documented Key Performance Index (KPI) Compliance April 2017 to June 2017

- On Scene <15 min 79%
- E2D <30 min 83.99%
- % Bundle of Care 83.06%
  - Time of day last seen normal 92.51%
  - Blood Glucose level 84.03%
  - Consult via EMRC 74.24%
- E2D=At patient to hospital door time
- Goal is > 90% compliance

STEMI Documented Key Performance Index (KPI) Compliance April 2017 to June 2017

- On scene time $\leq$15 min 81.8%
- E2D time $\leq$30 min 81.8%
- Bundles of Care 85.9%
  - Aspirin Administration 95.5%
  - Transmission of 12-lead 76.9%
  - Consult via EMRC 89.5%
- E2D=At patient to hospital door time
- Goal $\geq$90% compliance

CPAP (Continuous Positive Airway Pressure) Documented Key Performance Index (KPI) Compliance Apr 2017 to June 2017

- On scene time $\leq$15 min 60.9% ⬆
- E2D time $\leq$30 min 81.57% ⬇
- Bundles of care 78.32% ⬆
  - Altered 95.07% ⬆
  - Rate of Breathing 78.76% ⬇
  - EtCO2 (% CO2 in exhaled air) 52.33% ⬇
  - Pulse Ox (% O2 in blood) 98.6% ⬇
  - Consult via EMRC 66.9% ⬆
- New metric goal $\geq$90%

Patients discharged alive after given CPR

- 52 in FY 2016
- 64 in FY 2017
- CPC Scores: 53 with 1 or 2; 11 with CPC 4 or 4

CEREBRAL PERFORMANCE CATEGORY SCALE
- CPC 1 A return to normal cerebral function and normal living
- CPC 2
  Cerebral disability but sufficient function for independent activities of daily living
- CPC 3
  Severe disability, limited cognition, inability to carry out independent existence
- CPC 4 Coma
- CPC 5 Brain death

Clinical Documentation Initiative

Will support:

- More accurate reporting of patient care

- Clinical improvement (QA & QI efforts)

- EMS billing (internal and external partners)

Engaged Stakeholders:

- MIEMSS

- OMO

- QA/QI Officers

- EMS Billing

MCFRS Policy 02-01AMIII

Incident Reporting Requirements and Records Management

Key Performance Indicators (KPIs)

Key Performance Indicators

- Comparison measures for EMS

- Working with internal and external partners to develop

  - EMS Compass

  - MIEMSS

  - MCFRS Planning and County stat

MCFRS is already measuring:

- CPR/ROSC

- STEMI/ACS care

- Stroke Care

- In development are:

  - Seizure care

  - Asthma care

  - Sepsis care

Medical Protocols

The Maryland
Medical Protocols
for Emergency Medical Services Providers

Effective July 1, 2017

Maryland Institute for
Emergency Medical Services Systems
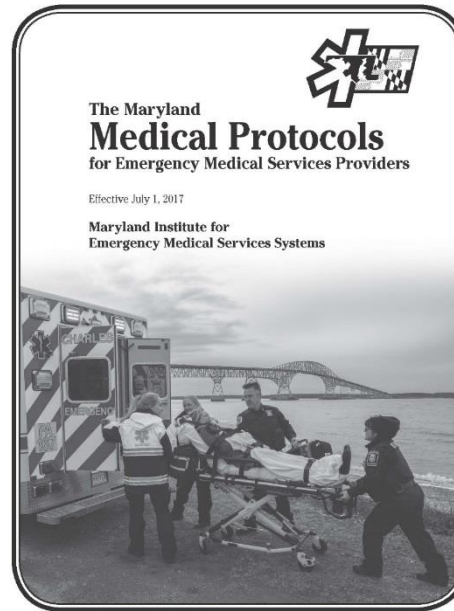
QA/QI → Review Science / MCFRS Data → New or Revised Protocols

MCFRS Sponsored Protocols

- For 7/1/17:

  - Carbon Monoxide/Smoke Inhalation

  - Syncope

  - ADP

  - Assisted in review of consultation requirements

  - Assisted in MIH protocol

- For 7/1/18

  - Cardiac Arrest Guidelines (new)

  - Mechanical CPR (mCPR) (new)

  - Termination of Resuscitation (complete rewrite)

MCFRS Sponsored Protocols

- For 7/1/18 (cont'd):

  - Cardiac Emergencies – Non-arrest (revision)

  - Return of Spontaneous Circulation (revision)

  - Trauma Arrest (revision)

  - Helicopter usage and Trauma Decision Tree (revision)

  - Elimination of D50 from formulary (D10)

  - Comprehensive agitation protocol/ ketamine (new, collaboration with Howard County, AACO, MSPAC)

Mobile Integrated Healthcare

Captain Jamie Baltrotsky

Some early *home visit* results…

		Number of New Enrolled Patients - HOME VISIT	New Enrolled Patient Calls 180 Days Prior to HOME VISIT	New Enrolled Patient Calls 150 Days Prior to HOME VISIT	New Enrolled Patient Calls 120 Days Prior to HOME VISIT	New Enrolled Patient Calls 90 Days Prior to HOME VISIT	New Enrolled Patient Calls 60 Days Prior to HOME VISIT	New Enrolled Patient Calls 30 Days Before HOME VISIT	New Enrolled Patient Calls 30 Days After HOME VISIT	New Enrolled Patient Calls 60 Days After HOME VISIT	New Enrolled Patient Calls 90 Days After HOME VISIT	New Enrolled Patient Calls 120 Days After HOME VISIT	New Enrolled Patient Calls 150 Days After HOME VISIT	New Enrolled Patient Calls 180 Days After HOME VISIT
QTR 3 FY17	January													
	February													
	March	2	27	23	21	15	10	7	1	4	11	4		
QTR 4 FY17	April	1	15	15	14	11	10	8	4	4	7			
	May	1	7	7	5	5	1	1	2					
	June	2	8	7	16	11	5	6	0					
QTR 1 FY18	July	3	36	35	30	21	27	8						
	August													
	September													
QTR 2 FY18	October													
	November													
	December													
	TOTAL	9	93	87	86	63	53	30	7	8	18	4		
	% Change								-76.67%	-84.91%	-71.43%	-95.35%		
	Average	1.80	18.60	17.40	17.20	12.60	10.60	6.00	1.75	4.00	9.00	4.00		

Stats at a Glance

Enrolled Patients

2015: 14

2016: 33

2017 (to date): 119

Latest Updates

- SQUIRE report written on MCNIC
  - [Click here to view SQUIRE REPORT](#) – author Kelly Arthur from Health Quality Innovation (HQI)
  - These are technical "scientific" research papers and the competition for publishing is intense. Most SQUIREs are written by PhDs and MDs. The main purpose was to get it in front of reviewers (from Medicare) to start the conversation about MIH
- Increased involvement with leadership of NEXUS Montgomery for funding opportunities through hospitals

Latest Updates

- Dementia/Alzheimer's Video is ready to go and just needs communication to field
  - https://www.mcfrsit.com/trackingalz/
  - Public Safety Team initiatives (MFRS & MCPD) have been communicated to Dementia/Alzheimers Community at National level

- Medication reconciliation pilot with HHS in full swing
  - Grant for 50K
  - Need to reconcile medications of 80 patients by September 30th

MCFRS Monthly Leadership Briefing

Division of Operations

Emergency Medical Services Section

May 23, 2017

Assistant Chief Barry Reid

Critical Elements

- Clinical Documentation Improvement (CDI)
- Triage Proficiency
- eMeds
- ICS Courses
- FirstWatch
- Medical Protocols
- MCNIC[3]

MCFRS Operations Division EMS Section Monthly Dashboard

Month: April   **Year:** 2017

STEMI VS NON STEMI

STEMI VS NON STEMI	MONTH	YTD
Total 12 Leads performed	1603	13909
- STEMI	28	248
Avg Time on Scene (min)	13:32	
Non-STEMI cardiac ch. pains	299	2806

Special QA Topic

Title		
Measure	Unit	Unit
Stroke on scene time	12:45	
Stroke % scene <15 min	77.42	
STEMI % scene<15 min	76	
CPAP on scene	14:33	
CPAP % scene <15 min	57.14	

QA CASES

QA CASES	Month	YTD
LEVEL1		1
LEVEL2	0	34
LEVEL3	5	70
ALS	3	78
BLS	2	25
Sustained	5	45
Not Sustained	0	14
Currently Open		
QI Reports Reviewed	331	2463
QA Reports Reviewed	80	1087
TOTAL Reviewed	411	3550

Notes: A732: 232; M725: 212

EPCR OUTCOME SUMMARY

EPCR OUTCOME SUMMARY	Month	YTD
Total Epcr completed	6850	69864
- Patient Transported	5766	58864
- Patient Refusal	486	5046
Working Codes	66	331
- Pre-hospital Saves	21	203
- Resuscitation Terminated	28	265
ALS/BLS Downgrade	231	1744
Missing ePCRs	6	46
Billing compliance %	16.43	
Intubations performed	39	324
I/Os performed	28	332

NEW MEDICS

NEW MEDICS	Month	YTD
Career	4	22
Volunteer	0	8

Residents	Career	Vol
#Residencies 1st 3 months	0	1
#Residencies on extension	0	0
In Medic Class or pending residency	10	18
Medics in Recruit Class# 41	9	YTD
ALS Certification Dropped	2	18
# Roster Medic Vacancies	7	

INCUMBENT MEDICS

INCUMBENT MEDICS		#
Career	MF and Below	192
	LT & CA	78
	Non-Ops	4
Volunteer		90
TOTAL		364

	Mth	YTD
Promotions Processed	29	119
Transfers Processed	29	360

CUSTOMER SERVICE SURVEYS

Program Measure	County-Wide Average YTD
"Our People"	
Quick & Efficient	Temporarily
"We want to help"	Suspended
Crew Friendly	
Took Care of you	
Care of belongings	
Explained care	
Anticipated Needs	
"Our Service"	
Receipt of 911 call	
Response time	
Fire Extinguishment	
Medical treatment	
Ambulance transport	
Other service (specify)	
Overall Average	

RECORDS REQUEST

SUBPOENA		Reports		
Records	Pers	EMS	Fire	MONTH
40	5	82	33	160
			YTD ➞	1832

Super Users	MONTH	YTD
New Users >4 Responses	17	172
Current Users	12	90
Total Monthly Super Users	29	262
Total SuperUser Responses	153	1,370
# of Homeless Individuals	13	60
Homeless Responses	178	558
% Homeless Responses	50	
Field Referrals to APS/A&D	15	95
Housing (Hoarding/Disrepair)		3
Behavioral Health Referrals	3	12
NH Ombudsman Referrals	3	21

OPERATIONS

OPERATIONS	Month	YTD
Echo Dispatches	60	751
ALS -2 Dispatches	337	3651
Average Cycle Time (minutes)		
Number of transport units above 150 calls	10	122
Number of transport units above 200 calls	5	70

Alerts	Number	Hours	Avg
Hosp. Red Alerts	16	114.27	7.1
Hosp. Yellow Alerts	80	388.19	4.9
Hosp. Reroutes	11	14.05	1.3
Total Hosp. Alerts	108	518.76	4.8
Blue Alerts	0	0	#DIV/0!

QA Cases

LEVEL 1 The most severe level, including an incident that results in the worsening of a patient's condition or causes death, the provider is identified as being a risk to their patients, MCFRS and/or themselves.

LEVEL 2 An incident which may include protocol violations or prohibited conduct as defined by COMAR and which does not meet criteria for a Level 1

LEVEL 3 A less severe violation which contains no criteria from Level 1 or 2 and can be handled with immediate corrective action.

CUSTOMER SURVEYS 1-5

"Our People"   **"Our Service"**

5 Strongly Agree	Very Satisfied
4 Agree	Satisfied
3 Neither	Neither
2 Disagree	Dissatisfied
1 Strongly Disagree	Very Dissatisfied

Hospital Alert Status

Red The hospital has no ECG monitored beds available. These ECG monitored beds will include all in-patient critical care areas and telemetry beds.

Yellow The emergency department temporarily requests that it receive absolutely no patients in need of urgent medical care. Yellow alert is initiated because the Emergency dept is experiencing a temporary overwhelming overload such that priority II and III patients may not be managed safely.
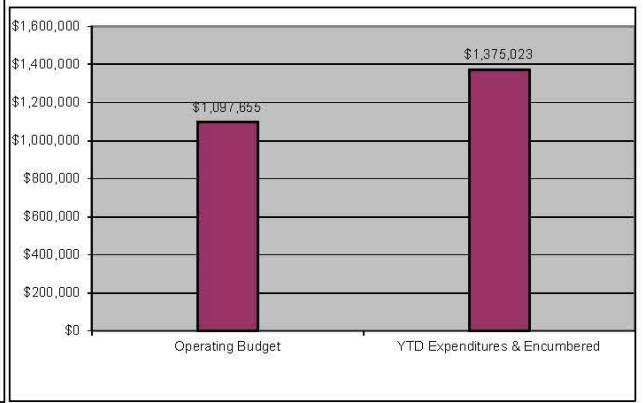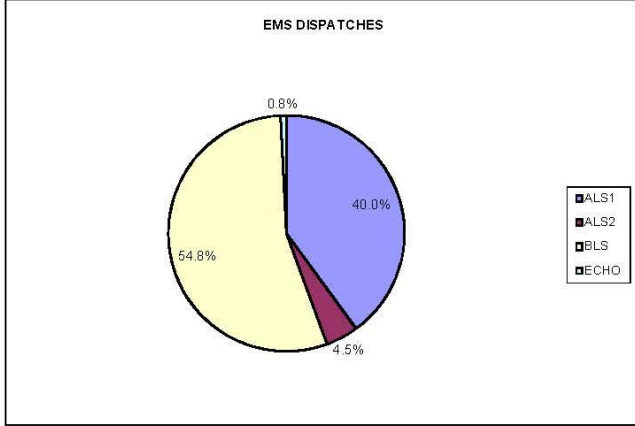
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Blue When an EMS jurisdictional system is temporarily taxed to its limits in providing pre hospital care and ambulance transportation due to extraordinary situations such as snow, icing, flooding or other circumstances that contribute to high demand for ambulance service (suspends yellow)

EMS DISPATCHES

ALS1 40.0%, BLS 54.8%, ALS2 4.5%, ECHO 0.8%

Operating Budget $1,097,855; YTD Expenditures & Encumbered $1,375,023

Cardiac Resuscitation Rates
% Return Of Spontaneous Circulation(ROSC)

Stroke Documented Key Performance Index (KPI) Compliance Oct-2016 to Apr-2017

- On Scene $\leq$15 min 81.03%
- E2D $\leq$30 min 85.06%
- % Bundle of Care 82.97%
  - Time of day last seen normal 94.81%
  - Blood Glucose level 85.51%
  - Consult via EMRC 68.59%
- E2D=At patient to hospital door time
- Goal is $\geq$ 90% compliance

STEMI Documented Key Performance Index (KPI) Compliance Oct-2016 to Apr-2017

- On scene time $\leq$15 min 82.07%
- E2D time $\leq$30 min 81.09%
- Bundles of Care 84.29%
  - Aspirin Administration 92.97%
  - Transmission of 12-lead 76.91%
  - Consult via EMRC 83.19%
- E2D=At patient to hospital door time
- Goal $\geq$90% compliance

CPAP (Continuous Positive Airway Pressure) Documented Key Performance Index (KPI) Compliance Apr-2017

- On scene time $\leq$15 min 57.14%

- E2D time $\leq$30 min 85.71%

- Bundles of care 71.67%

  - Altered 90.48%

  - Rate of Breathing 81%

  - EtCO2 (% CO2 in exhaled air) 61.9%

  - Pulse Ox (% O2 in blood) 100%

  - Consult via EMRC 66.67%

- New metric goal $\geq$90%

Clinical Documentation Initiative

Will support:

- More accurate reporting of patient care

- Clinical improvement (QA & QI efforts)

- EMS billing (internal and external partners)

Engaged Stakeholders:

- MIEMSS

- OMO

- QA/QI Officers

- EMS Billing

MCFRS Policy 02-01AMIII

Incident Reporting Requirements and Records Management

Key Performance Indicators (KPIs)

Key Performance Indicators

- Comparison measures for EMS

- Working with internal and external partners to develop

  - EMS Compass

  - MIEMSS

  - MCFRS Planning and County stat

MCFRS is already measuring:

- CPR/ROSC

- STEMI/ACS care

- Stroke Care

- In development are:

  - Seizure care

  - Asthma care

  - Sepsis care

NIMS ICS Courses

January 2017

- **All Hazards Planning Section Chief – 26 Students**

April 2017

- **ICS 300 / ICS 400 – 12 Students**

FirstWatch Update

Battalion Chief Alan Butsch

Business Intelligence

Real time data surveilled from:

- eMEDs - now

- CAD – by 6/17?
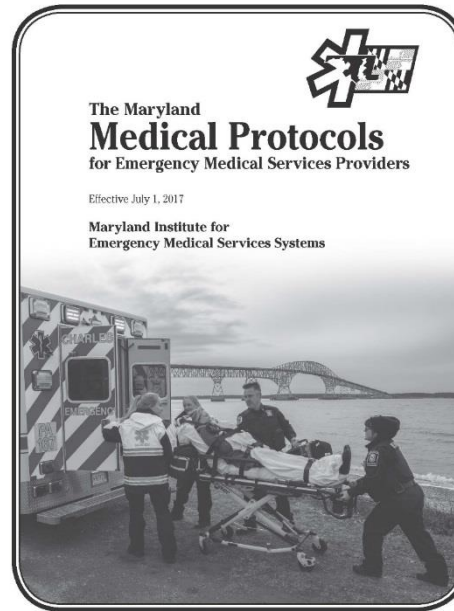
- ProQA – next after CAD

- RMS? (PG now implementing)

Trying to support:

- Staff

- Field BCs

- EMS DOs

- Hospitals

- Health Dept

- MCPD

Medical Protocols

MCFRS Sponsored Protocols

- For 7/1/17:

  - Carbon Monoxide/Smoke Inhalation

  - Syncope

  - ADP

  - Assisted in review of consultation requirements

  - Assisted in MIH protocol

- For 7/1/18

  - Cardiac Arrest, TOR, mCPR devices

  - Helicopter usage

  - D10 usage

  - Revision of ExDS protocol / ketamine

Mobile Integrated Healthcare

Lieutenant Jamie Baltrotsky

MC NIC³

Montgomery County Non-Emergency Intervention & Community Care

B/C Alan Butsch, MSC, NRP
Lieutenant Jamie Baltrotsky, BS, NRP
Lieutenant Ashley Robinson, MS, NRP

Montgomery County Fire & Rescue Services

The Problem

EMS Dispatches by Type and Resulting Transport

Chart showing EMS Dispatches by Type and Resulting Transport for CY2013 through CY2016, with stacked bars for ALS1, ALS2, and BLS, and a line for Total Number of Patients Transported (63,743 in CY2013; 67,369 in CY2014; 68,784 in CY2015; 71,528 in CY2016).
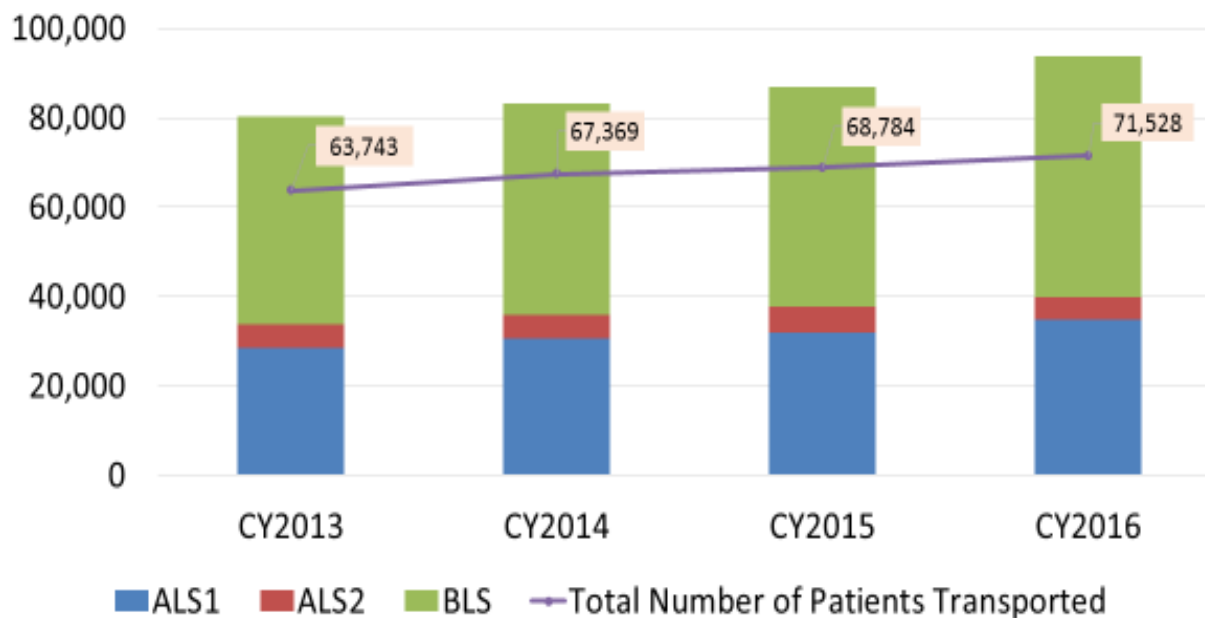
How Do We Meet Our Goals?
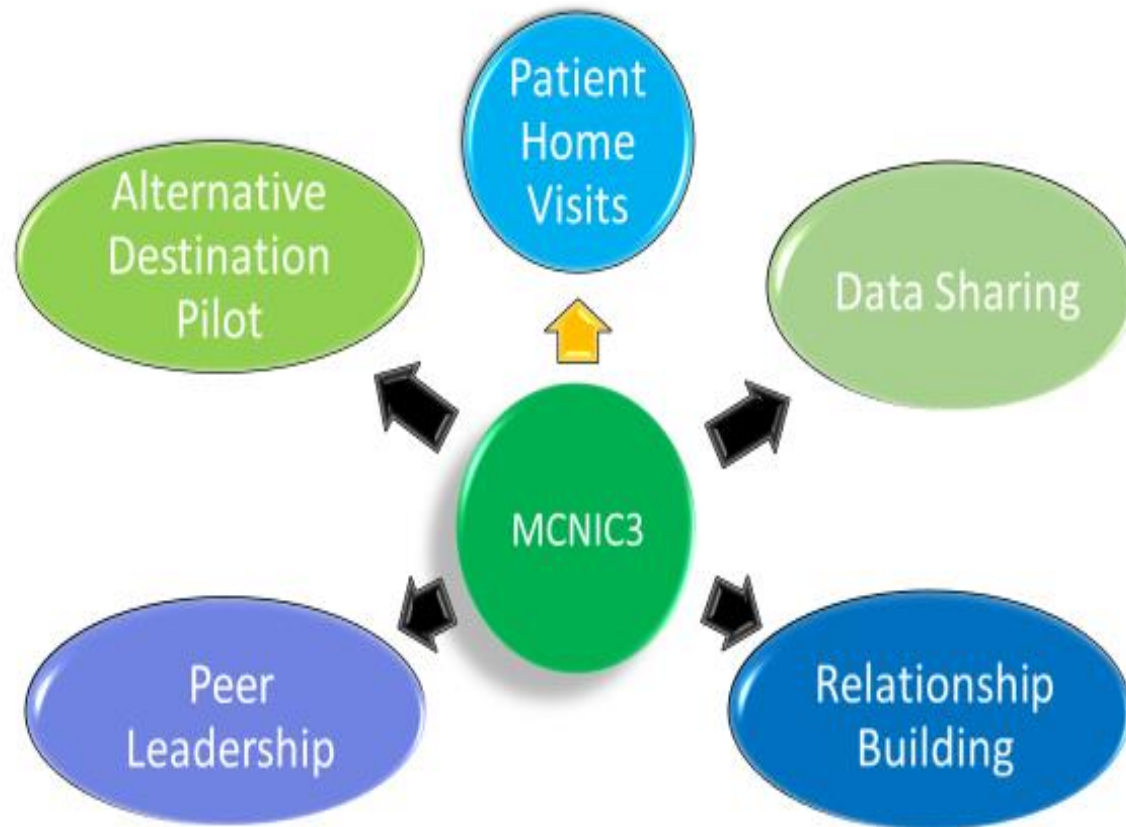
MCNIC³ Program Referral Flow Chart

Montgomery County Fire & Rescue MCNIC³ Intake

Montgomery County Health & Human Services
- Behavioral Health
- Adult Protective Services (APS)
- Social Services to Adults (SSTA)
- Long-Term Care Ombudsman
- Homeless Outreach

Hospital Transitional Care Programs
- Washington Adventist Hospital
- Shady Grove Adventist Hospital
- Suburban Hospital
- Holy Cross Silver Spring
- Holy Cross Germantown
- Medstar Montgomery

FRS MCNIC³ Team
- Home Visits
- Phone Follow-Up
- MC Senior Outreach
- Montgomery County Police Crisis
- Social Work Student Program

NEXUS Montgomery Regional Partnership
- WISH (Wellness & Independence for Seniors at Home)

MC Elder/Vulnerable Adult Abuse Task Force

Rev. 2/16/17 JKB

MCFRS Management Team Briefing

But Does It Work?

2016

- On average - 55% drop in 911 responses for all enrolled in program

- Enrolled = some type of contact with patient (APS, home-visit, phone call to family, etc)