This Meeting of PMAC is on:
Monday, February 24, 2020
9:00 AM to 11:00 AM
The Towers of Riverwalk
4210 Riverwalk Parkway, Riverside
First Floor Conference Rooms – Lemon and Orange

1. CALL TO ORDER & HOUSEKEEPING (3 Minutes)
   Seth Dukes, MD (Chair)

2. PLEDGE OF ALLEGIANCE (1 Minute)
   Seth Dukes, MD (Chair)

3. ROUNDTABLE INTRODUCTIONS (5 Minutes)
   Seth Dukes, MD (Chair)

4. APPROVAL OF MINUTES (3 Minutes)
   October 21, 2019 Minutes— Seth Dukes, MD (Attachment A)

5. STANDING REPORTS
   5.1. Trauma System—Shanna Kissel (Attachment B)
   5.2. STEMI System—Dan Sitar (Attachment C)
   5.3. Stroke System—Dan Sitar (Attachment D)

6. Other Reports
   6.1. EMCC Report – Dan Bates

7. DISCUSSION ITEMS, UNFINISHED & NEW BUSINESS
   7.1. Unfinished Business – Misty Plumley
      7.1.1. PMAC Structure Review – (Attachment E)
   7.2. Provider Recognitions – REMSA Clinical Team
   7.3. Riverside County Overdose to Action – RVC Public Health (Attachment F)
   7.5. CQI Update – Lisa Madrid (Attachment G)
   7.6. Education / Policy Update – Misty Plumley (Attachment H)
   7.7. PMAC Schedule Update for May 2020 – Misty Plumley (Attachment I)
   7.8. Action Item Review – REMSA Clinical Team

8. REQUEST FOR DISCUSSIONS
   Members can request that items be placed on the agenda for discussion at the
   following PMAC meeting. References to studies, presentations and supporting
   literature must be submitted to REMSA three weeks prior to the next PMAC
   meeting to allow ample time for preparation, distribution and review among
   committee members and other interested parties.
### Members

<table>
<thead>
<tr>
<th>Medical Center/Department</th>
<th>Members</th>
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<tbody>
<tr>
<td>Loma Linda University Med. Center Murrieta</td>
<td>1-Kevin Flaig, MD 4-Kristin Butler</td>
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<tr>
<td>Menifee Valley Medical Center</td>
<td>1-Todd Hanna, MD 4-Janny Nelsen</td>
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<td>Kaiser Permanente Moreno Valley</td>
<td>1-George Salameh, MD 4-Katherine Heichel-Casas</td>
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<td>Palo Verde Hospital</td>
<td>1-David Sincavage, MD 4-Carmelita Aquines</td>
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<td>Parkview Community Hospital</td>
<td>1-Chad Clark, MD 4-Guilleen Estrada</td>
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<td>Rancho Springs Medical Center</td>
<td>1-Zeke Foster, MD 4-Sarah Young</td>
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<td>Riverside Community Hospital</td>
<td>1-Stephen Patterson, MD 4-Sabrina Yamashiro</td>
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<td>Riverside County Fire Department</td>
<td>5-Scott Visyak 8-Tim Buckley</td>
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<td>Riverside County Police Association</td>
<td>7-Sean Hadden</td>
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<td>Riverside University Health System Med. Center</td>
<td>1-Michael Mesisca, DO (Vice Chair) 4-Kay Schulz</td>
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<td>San Gorgonio Memorial Medical Center</td>
<td>1-Richard Preci, MD 4-Trish Ritarita</td>
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<td>Temecula Valley Hospital</td>
<td>1-Pranav Kachhi, MD 4-Jacquelyn Ramirez</td>
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<tr>
<td>Trauma Audit Comm. &amp; Trauma Program Managers</td>
<td>2-Frank Ercoli, MD 3-Charlie Hendra</td>
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</tbody>
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### Ex-officio Members:
1-Cameron Kaiser, MD, Public Health Officer  
2-Reza Vaezazizi, MD, REMSA Medical Director  
3-Bruce Barton, REMSA Director  
4-Jeff Grange, MD, LLUMC  
5-Phong Nguyen, MD, Redlands Community Hospital  
6-Rodney Borger, MD, Arrowhead Regional Medical Center

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9. **ANNOUNCEMENTS (15 Minutes)**  
   This is the time/place in which committee members and non-committee members can speak on items not on the agenda but within the purview of PMAC. Each announcement should be limited to two minutes unless extended by the PMAC Chairperson.

10. **NEXT MEETING / ADJOURNMENT (1 Minute)**  
    May 11, 2020—4210 Riverwalk Parkway First Floor Conference Rooms

11. **CASE REVIEW SESSION (60 Minutes)**  
    This is the time/place in which committee members and invited parties will participate in case review of sentinel events, or cases that are part of trends in patient care in the EMS System. Closed case review session for PMAC members and invited personnel.

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Members are requested to please sit at the table with name plates in order to identify members for an accurate count of votes.  

Please come prepared to discuss the agenda items. If you have any questions or comments, call or email Evelyn Pham at (951) 358-3029 / epham@rivco.org. PMAC Agendas with attachments are available at: [www.rivcoems.org](http://www.rivcoems.org). Meeting minutes are audio recorded to facilitate dictation for minutes.
## Topical / Discussion / Action

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>DISCUSSION</th>
<th>ACTION</th>
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<tbody>
<tr>
<td>1. CALL TO ORDER</td>
<td>PMAC Chair Dr. Zeke Foster called the meeting to order at 9:03 a.m.</td>
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<tr>
<td>2. PLEDGE OF ALLEGIANCE</td>
<td>PMAC Chair Dr. Zeke Foster led the Pledge of Allegiance.</td>
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<tr>
<td>3. ROUNDTABLE INTRODUCTIONS</td>
<td>PMAC Chair Dr. Zeke Foster facilitated self-introductions.</td>
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<tr>
<td>4. APPROVAL OF MINUTES</td>
<td>The July 22, 2019 PMAC meeting minutes were approved with no changes.</td>
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</table>
| 5. STANDING REPORTS        | **5.1 Trauma System Updates**  
REMSA staff is working on developing data elements across the current registry and ImageTrend for the Trauma Patient Registry with training to come end of 2019, early 2020. Roll out of the registry will begin next year with at least 1 Trauma Center.  
Penetrating trauma protocol updated in Fall PUC training, effective October 1<sup>st</sup>, 2019.  
EMSA is working on updating Trauma regulations with a workgroup plan in place for a two-year re-write.  
REMSA/ICEMA are working on developing a trauma center standards policy to include trauma center designation that will roll out next year with trauma contracts.  
2019 Trauma System update sent to EMSA in September and waiting for approval before it is posted for the group to view. | Information only.                                               |
| 5.2 STEMI System Updates   | EMS plan update for the STEMI Critical Care System was submitted to EMSA on September 30<sup>th</sup> and are currently awaiting their review and approval.  
ImageTrend STEMI Patient Registry was implemented on August 2<sup>nd</sup>, 2019 with full patient inclusion criteria and data elements. Data entry is retroactive back to July 1<sup>st</sup>, 2019. Performance metrics continue to be developed to provide tracking and guidance for CQI initiatives. As the registry is further developed, more sophisticated metrics will be added.  
Policies update include ACS/STEMI treatment policy #4402: BHPO for nitrates in inferior MI was removed, effective October 1<sup>st</sup>, 2019. Adverse events related to NTG are being tracked to monitor this policy change. Streamlining of patient disposition section was approved by the committee and will take effect April 1<sup>st</sup>, 2020. | Information only.                                               |
### 5.3 Stroke System Updates

EMS plan update for Stroke Critical Care System was submitted to EMA on October 21st/22nd and are currently awaiting their renewal and approval.

ImageTrend Stroke Patient Registry was implemented on August 2nd, 2019 with full patient inclusion criteria and data elements. Data entry is retroactive to July 1st, 2019. As the patient registry is further developed, more sophisticated performance metrics will be added. To comply with state regulations, data from the REMSA registry will be submitted to the California Stroke Registry in an automated process. Hospitals are working through staffing for data entry as stroke will be collecting 10 times more data than previously collected. Implementation of the Patient Registry also provides full patient continuum of care as it connects hospital outcome data back to EMS.

System-wide stroke education to all EMS personnel discussed as a CQI initiative. The committee recommends each policy update period (currently twice a year) to include stroke education with content based upon identified needs by CQI and approved by REMSA. No start data for this education has been finalized yet.

Policies update include:
- Mandatory base contact for all suspected stroke patients to be replaced with mandatory stroke center notification, effective April 1st, 2020.

Next Stroke Committee meeting is on November 14th, 2019.

### 6. OTHER REPORTS

#### 6.1 EMCC Report

EMCC is currently working on influenza community outreach. A flyer and press release will be created to distribute to the community for public outreach in educating the public on a pandemic flu plan.

October 2nd, 2019, EMCC membership proposed meeting date change to hold their meetings at the end of the quarter.

### 7. DISCUSSION ITEMS, UNFINISHED & NEW BUSINESS

#### 7.1 Unfinished Business

Regarding previous discussion on allowing students access to the ePCR system, a currently strategy is in place to allow access using the existing EMT credentialing system. Once it has been finalized, REMSA will reach out to the paramedic schools to notify them of the update. Access will roll out in phases allowing students to have their own account and be able to enter data into the system; however, the actual crew on the call...
still needs to be responsible for the main source of documentation. Application for out of county credentials will also be allowed access and we are currently working on a way for brand new students on how to get them access without prior credentials. More to follow.

### 7.2 Provider Recognitions

Recognizing outstanding performance from our providers, Misty Plumley congratulated and thanked first responders and their team for exceptional service in patient care from a cardiac arrest incident in Hemet. Awards of Excellence were given to the recipients below:

- AMR Hemet
  - Jacob Perez-Hestdalen, EMT
  - Tom Booth Jr., Paramedic
- Hemet Fire
  - Daniel Billington, EMT
  - Daniel Lamy, EMT
  - Daniel Sprague, Paramedic

### 7.3 Standardized Data Reports

Standardized data report goals are to standardize an objective approach in how we operate as an EMS system, showcasing a continuum of care for our patients. The data tells us what is working, how we can drive policy and best practices and use valuable information to take the next step. Understanding what the data is telling us along with consistency in entering data helped us integrate a weekly report system for surges in influenza, causes for APOD and how it is impacting our system and many others.

REMSA has drafted below three data reports to review EMS system impacts and functionalities. These reports were recently presented at EMCC in October 2019. REMSA has opened a stakeholder comment period through November 18, 2019 for these reports.

Link to the comment survey: [www.surveymonkey.com/r/REMSA_Public_Comment_Form](http://www.surveymonkey.com/r/REMSA_Public_Comment_Form)

**Patient Care Continuum Report – 2018**
- The purpose of this report is to provide analysis of the prehospital time intervals identified in REMSA policy 2203-Patient Care Continuum Time Standards. Additional time intervals were added to the analysis to further measure the prehospital continuum of patient care from dispatch to hospital arrival

**Emergency Medical Dispatch Report – 2018**
- County approved annual report on the utilization of EMD in Riverside County

**WIC 5150 Impact Report – 2018**
- How often are 5150s entering the system and the impact it has on emergency medical services

Information only.
PMAC Draft Minutes  
October 21, 2019

- **Methodology**: to determine frequency of WIC-5150 responses by Riverside County EMS, ePCR completed by on-scene-9-1-1 or transport, medical responders between January 1st to December 31st, 2018 in ImageTrend Elite were analyzed.

- **Findings**: analysis of ePCR indicate Riverside County EMS agencies generated approximately 16,265 WIC-5150 responses in 2018. Nearly three-quarter of 5150 responses were for non-emergency transport while one-quarter involved 9-1-1 Medical Dispatch responses. Overall, in Riverside County alone, this amounts to a projected cost of $1.5 million annually in resources.

- **The committee brought up discussion on working with Behavioral Health to mitigate these transports of possibly having them brought to urgent care centers instead of EMS transports. A suggestion was brought up to start a taskforce in a localized area with the highest demographic of 5150 transports to review the impact and changes. Additional medical screening would be needed from ETS (Emergency Treatment Services).**

| 7.4 EMD Annual Report | REMSA presented at EMCC the Emergency Medical Dispatch Summary Report 2018 which reflects annual data collected regarding Emergency Medical Dispatch (EMD) and existing communications and call triage strategies. In reference to the report on page 2, the map of Riverside County colored in blue are currently areas where EMD is being implemented and in yellow where it is not. Murrieta and Hemet are currently in the process of being implemented. The pie graph on page 3 reflects the utilization of EMD for Riverside County in 2018, showing 83% yes and 17% no. In addition, the chart on page 3 shows the rate of EMD integration with EMS ePCR for all 911 provider agencies in Riverside County for 2018. 2018 distribution of determinant levels for agencies with ePCR integration has been consistent throughout the years. The last graph on page 4 reviews total response times, and illustrates that responders respond quicker to higher acuity of calls. |
| 7.5 CQI Update | The CORE measures were submitted on September 16th and accepted by the state. REMSA is in the process of updating out CQI plan. It was last updated in 2013. Once the rough draft is complete, it will be posted. REMSA will continue monitoring the recent changes in the 2019-2020 policy manual such as the uses of Push-Dose Epi. The use of push-dose epi and saline use needs to be recorded in medications more appropriately. In addition, REMSA is |
collecting data for time off chest for cardiac arrest that was sent out to providers to complete monthly on how we perform CPR.

Over the next several months, CQI reports will be added to the SCOPE page.

Next CQILT meeting is on January 16th, 2020 with a new start time at 9:00 a.m.

| 7.6 Education/Policy Update | Proposed policy changes for Spring 2020 have been compiled and proposal includes:

1. **Drug and Equipment List**
   a. Change Broselow Tape to Length Based resuscitation tape (a commercially available standardized tape)
      i. Along with dependent policies throughout

2. **Universal Patient Protocol**
   a. Removal of sexual assault requiring base hospital contact to facilitate destination
      i. EMS should choose destination based on patients’ medical needs.
   b. Addition of SIRS criteria to assessment frame for identifying these patient types

3. **Traumatic Injuries and Burns**
   a. Removal of verbiage requiring that opiates only be administered to isolated extremity trauma or appendicular skeleton trauma
   b. Addition of Intranasal ketamine to pain management strategies

4. **Acute Coronary Syndrome**
   a. Simplify and clarify language for when to transmit 12-lead ECG (streamline verbiage for transmission)

5. **Respiratory Distress**
   a. Addition of non-fatal drowning as inclusion criteria for CPAP usage
   b. Possible inclusion of nebulized epinephrine for upper airway complaint of croup

6. **Pain Management**
   a. Addition of intranasal ketamine to pain management strategies/routes for administration 12-lead ECG performance standard

7. **12-lead ECG performance standard**
   a. Add language for indications for serial 12 lead ECG performance

8. **MICN Re-Authorization changes**

**Recommendation from PMAC to confirm movement of proposed policy changes to stakeholder comment phase.**
9. STEMI regulation impacts for 5401 (hospital classification)
10. Stroke regulation impacts for 5701 (hospital classification)

PMAC discussed item 2a. as a concern for them as not all facilities have MOU’s for specialty care nurses to triage victims and would potentially cause the need for them to go from hospital to hospital, after transport has been altered. In addition, insurance will not pay for added transports. The committee suggested to move with caution on how to proceed with this change. Continued discussion on this topic will be held at the next CQILT meeting on January 16th, 2020 where a representative from SART will also be present to discuss further.

PMAC discussed item 6a. for pain management and suggested going towards a trial study that will encourage provider involvement. Dr. Vaezazizi reminded the committee that the LSOP process requires developing a protocol, then it must be submitted at the Scope of Practice meeting before finalizing.

Dr. Seth Dukes, AMR motioned the recommendation to put these policies into draft form and confirm movement of changes to stakeholder comment phase. Douglas Key, AMR seconded the motion.

Continued discussion from the previous meeting on King Airway and Orotracheal intubation usage. A report was presented on the total amount of times King Airway or Orotracheal intubation was performed from January 2018 – June 2019 on 911 responses only. Of these responses, the report also shows the complications documented for the usage of King or Orotracheal Intubation. Studies have shown the adverse effects of using King Airway, however providers are conflicted of removing a device without a proper replacement tool. The committee agreed to vote on either of the three options below which includes:

1. Remove King Airway completely
2. Leaving the policy as is. Currently King Airway has been removed for OHCA effective October 1st, 2019.
3. Making it optional, up to the provider if they would like to carry or not carry King Airway, with the condition that all providers who continue to carry King Airway, will monitor every use for QI, PI, and training.

Tim Buckley, Cal Fire motioned to move forward to vote, Dr. Davis seconded the motion. PMAC voted 1. Four, 2. Four, 3. Four, resulting in a three-way tie.

PMAC voted to leave the policy as is, with King Airway removed for OHCA effective October 1st, 2019 and will revisit the policy in 6 months for CQI.
PMAC Draft Minutes  
October 21, 2019

| 7.7 PMAC Schedule for 2020 | Proposed 2020 PMAC Schedule:  
9:00 – 11:00 a.m. at the Towers at Riverwalk Building  
Monday, February 24, 2020  
Monday, May 18, 2020  
Monday, August 24, 2020  
Monday, November 16, 2020 | PMAC approved the proposed meeting schedule for 2020. |

| 7.8 Action Item Review |  
- Revisit King Airway policy change after 6 months of collected data from providers to compare with BVM outcome.  
- Fall policies proposed to Stakeholder comment phase. Will continue SART discussion at the January 2020 CQILT meeting.  
- Stakeholder comment due by November 18th for the three reports below:  
  - Patient Care Continuum Report - 2018  
  - Emergency Medical Dispatch Report – 2018  
  - WIC-5150 Impact Report – 2018 | |

| 8. REQUEST FOR DISCUSSIONS | Dr. Zeke Foster has completed his 3rd year of his 2-year term as PMAC Chair; and is ready to step down. PMAC is seeking nominations for a new Chair along with a Vice Chair.  
Douglas Key, AMR nominated Dr. Seth Dukes, AMR for PMAC Chair.  
Dr. Stephen Patterson, RCH nominated Dr. Michael Mesisca, RUHS as Vice Chair. Both nominees accepted their nominations.  
PMAC voted to approve Dr. Seth Dukes, AMR as Chair, and Dr. Michael Mesisca, RUHS as Vice Chair. All voted yes with no objections. | PMAC voted Dr. Seth Dukes, AMR as the new PMAC Chair and Dr. Michael Mesisca, RUHS as the new PMAC Vice Chair. |

| 9. ANNOUNCEMENTS |  
- Murrieta Fire live with EMD starting December 18th, 2019. Live pulse point sometime in November  
- PMAC Membership structure is still on the table, discussion will continue in 2020  
- ePCR system migrating to a new URL starting January 2020  
- Emergency Department Advisory Committee (EDAC) is having their first meeting immediately following PMAC, with over 25 hospitals represented together to discuss issues relating to ED. | Information only. |

| 10. NEXT MEETING/ADJOURNMENT | Monday, February 24, 2020 (9:00 – 11:00 a.m.)  
4210 Riverwalk Parkway First Floor Conference Rooms. | Information only. |
DATE:        February 4, 2020

TO:            PMAC

FROM:      Shanna Kissel, RN, Assistant Nurse Manager

SUBJECT:  Trauma System

1. Trauma Registry has been built and ready for implementation. IVMC will be first to participate in data entry for the registry beginning February 2020.

2. Penetrating trauma protocol implemented October 1. REMSA is CQI’ing all penetrating trauma’s pronounced in the field without making BH contact.

3. EMSA is continuing to work on updating Trauma regulations. Workgroup in place and tentative timeline for regulation rewrite is about two years. No new updates or changes.

4. Trauma Center Standards policy DRAFT is complete and will be vetted through TAC. This is specific to the trauma center requirements and will have no effect on patient treatment or destination.

5. RUHS-MC and DRMC will be going through ACS surveys this year.

ACTION:  PMAC should be prepared to receive the information and provide feedback to REMSA.
Date: February 24, 2020

TO: PMAC

FROM: Dan Sitar, Specialty Care Consultant, RN

SUBJECT: STEMI System

1. Image Trend STEMI Patient Registry is six months into implementation. To date there are over 880 suspected and confirmed STEMI cases entered into the registry with facilities catching up on data entry. Development of data quality reports and metrics are underway.

2. Nitroglycerin was placed fully back into standing orders as of October 1st. Data audits indicate there is no change in the use of nitrates and no increase in adverse events as a result of the change.

3. Targeted education is being created as part of Policy Update Courses. The content is based upon identified educational needs and includes feedback on system-wide metrics.

4. Policies:

    a. ACS/STEMI treatment policy update (#4402):

        i. Streamlining of patient disposition section approved by the committee and will take effect April 1st, 2020.

Next STEMI Committee meeting is on April 9th, 2020 in the Vineyard room

Action: PMAC should be prepared to receive the information and provide feedback to the EMS Agency
Date: February 24, 2020

TO: PMAC

FROM: Dan Sitar, Specialty Care Consultant, RN

SUBJECT: Stroke System

1. The Image Trend Stroke patient registry is entering its sixth month with over 3,350 suspected and confirmed stroke cases entered thus far. Data quality reports and data metrics are in development.

2. Targeted education is being created for EMS personnel as part of Policy Update Courses. The content is based upon identified educational needs and includes feedback on system-wide metrics.

3. The requirement for each designated stroke facility to have two CT scanners will take effect on July 1st, 2020. At that time, stroke diversion will be removed from the Ambulance Diversion policy (#6103) and stroke centers may only divert stroke patients during periods of internal disaster diversion.

4. Policies: No changes to stroke treatment policies.

Next Stroke Committee meeting is on May 14th, 2020 in the Vineyard room

Action: PMAC should be prepared to receive the information and provide feedback to the EMS Agency
DATE: February 4, 2020

TO: PMAC

FROM: REMSA Clinical Team / Stakeholder Comment Compilation

SUBJECT: Proposed Updates for PMAC Structure

- Proposed Structure after compiled feedback

REMSA
PREHOSPITAL MEDICAL ADVISORY COMMITTEE

APPOINTMENTS

<table>
<thead>
<tr>
<th>MEMBER NAME</th>
<th>PMAC POSITION</th>
<th># OF REPS</th>
<th>APPOINTING AUTHORITY</th>
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<tr>
<td>Trauma Hospital Physician</td>
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<td>Pediatric Critical Care Physician</td>
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<td>Behavioral Health Medical Director</td>
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<td>Law Enforcement Representative</td>
<td>1</td>
<td>Riverside County Police Chief’s or similar aggregate LEO group</td>
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</table>
DATE:       February 7, 2020

TO:            PMAC

FROM:     RUHS – Public Health
          Catherine Farrokhi – Supervising Research Specialist
          Dan Bates – Deputy EMS Administrator

SUBJECT:  Riverside County Overdose to Action project

The Centers for Disease Control and Prevention (CDC) recently awarded RUHSPublic Health the three-year grant to enhance surveillance of overdose morbidity and mortality in Riverside County.

The project overview will be presented by RUHS Public Health.

Press release information:


ACTION:  PMAC should be prepared to receive the information and provide feedback to REMSA.
Date: February 24, 2020

TO: PMAC

FROM: Lisa Madrid, EMS Specialist

SUBJECT: CQI System

1. On December 4th I met with the CORE measures committee in person and will be meeting again on February 27th to revise and make the CORE measure indicator specification sheet more appropriate for data collection.

2. REMSA is in the process of updating our CQI plan.

3. REMSA will continue monitoring the recent changes to the 2019-2020 policy manual such as the uses of Push – Dose Epi, Ketamine, TXA, airway management, and resuscitation.

Our next CQILT/HEMS meeting is on April 16th at 9:00 a.m.

Action: PMAC should be prepared to receive the information and provide feedback to the EMS Agency
Total # of administrations that met criteria | 40
---|---
Total # of administrations that did not meet criteria | 30
Total # of questionable administrations due to poor or incomplete documentation | 27
Total # of Administrations | 104

**TXA Review - 04/01 through 12/24/2019**

- Total # of administrations that met criteria: 40 (41%)
- Total # of administrations that did not meet criteria: 30 (31%)
- Total # of questionable administrations due to poor or incomplete documentation: 27 (28%)
<table>
<thead>
<tr>
<th>Total # of base station orders, by facility</th>
<th>Desert Regional Medical Center</th>
<th>*Uncontrolled bleeding S/P mech fall, stable vitals</th>
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</thead>
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<tr>
<td>1</td>
<td>Inland Valley Medical Center</td>
<td>*Partial amputation with bleeding controlled S/P CAT application, stable vitals</td>
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<td>1</td>
<td>Riverside Community Hospital</td>
<td>*GI bleed</td>
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<td>4</td>
<td>Riverside University Health System Medical Center</td>
<td>(1) Stabbing, incomplete VS (2) GI bleed (3) TC, pt with hypotension and ABD pain (4) TC rollover with acute hypotension</td>
</tr>
</tbody>
</table>

**Most Common Issues Noted**

*Significant overuse of oxygen therapy
*Documentation of NS with TXA administration is rare
*Misunderstanding of TXA administration criteria - it is frequently given for significant blood loss regardless of pts HR or systolic BP
1mg = 3kg (6.6lbs)
2mg = 6kg (13.2lbs)
2.5mg = 7.5kg (16.6lbs)
3mg = 9kg (19.8lbs)

Documentation error

Doses calc’d & admin’d correctly 1039
Doses calc’d & admin’d incorrectly 173 (14%) Overdoses Underdoses
Total Doses Administered 1212

Total Number of Overdoses and Underdoses = 173
Overdoses (62%) Underdoses (38%)

Total Administrations to the Geriatric Population

Total Doses Administered
Total Patients Over the Age of 65 (~31%)

Total Administrations to the Geriatric Population with, and Without, a Decrease in GCS = 371
Geriatric Administrations without GCS change (~96%)
Geriatric Administrations with GCS change (~4%)
### Epinephrine 1: 100,000 Administration

**Total Patients received Epinephrine from September to December:**

<table>
<thead>
<tr>
<th>Epi Admin, Count</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Total Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>14</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>17</td>
<td>16</td>
<td>25</td>
<td>79</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Saline Admin, Count</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Total Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>13</td>
<td>39</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Not Administered / Not documented</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Total Patients</td>
<td>16</td>
<td>16</td>
<td>12</td>
<td>19</td>
<td>63</td>
</tr>
</tbody>
</table>

- **Primary Impression**
  - Cardiac arrest
  - Altered mental status
  - General weakness
  - Sepsis
  - Shock/Hypotension
  - Syncope / fainting
  - Respiratory distress - other
  - Respiratory distress-Pulmonary edema/CHF
  - Cardiac arrhythmia
  - Abdominal pain / problems
  - Allergic reaction
  - Behavioral (Hematemesis)
  - Cerebral infarction (stroke/CVA)
  - Chest Pain - Suspected Cardiac
  - Complications of surgery
  - Hypothermia/Cold Injury
  - Overdose/Poisoning/Ingestion
  - Respiratory distress - Acute bronchospasm
  - ST elevation myocardial infarction (STEMI)
  - Traumatic Injury

**Total Number of Patients:** 79

*Primary Impression is based on Agency who first administered Epinephrine.*

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5 patient encounters with single or multiple inappropriate administrations:
- *Cardiac arrest x2 - post ROSC with normotensive BP*
- *Cardiac arrest x1 - given in addition to Epi 1:10,000 without ROSC*
- *Resp distress x1 with normotensive BP*
- *Hypotensive pt S/P traumatic injury (TC)*

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This report is based on * "911 responses only"
* Excluding medications administered by other.
* Report range: September - December 2019

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* Initial systolic BP is based on Agency who first administered Epinephrine.
* Final Systolic BP is based on Transporting agency

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**Patient Average / Initial / Last BP**

<table>
<thead>
<tr>
<th>Epi admini., Count</th>
<th>Avg Initial Sys BP</th>
<th>Avg Initial Diastolic BP</th>
<th>Avg Last Sys BP</th>
<th>Avg Last Diastolic BP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>95</td>
<td>62</td>
<td>92</td>
<td>52</td>
</tr>
<tr>
<td>2</td>
<td>74</td>
<td>43</td>
<td>99</td>
<td>56</td>
</tr>
<tr>
<td>3</td>
<td>82</td>
<td>52</td>
<td>86</td>
<td>52</td>
</tr>
<tr>
<td>4</td>
<td>72</td>
<td>45</td>
<td>100</td>
<td>56</td>
</tr>
<tr>
<td>5</td>
<td>76</td>
<td>52</td>
<td>99</td>
<td>63</td>
</tr>
<tr>
<td>Average</td>
<td>80</td>
<td>51</td>
<td>95</td>
<td>56</td>
</tr>
<tr>
<td>Median</td>
<td>76</td>
<td>52</td>
<td>99</td>
<td>56</td>
</tr>
</tbody>
</table>

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* *Primary impression is based on Agency who first administered Epinephrine.*
DATE: February 3, 2020

TO: PMAC

FROM: Misty Plumley, Senior EMS Specialist

SUBJECT: Training and Education Update

**Spring PUC 2020**

Spring 2020 Policies and Procedures Update Courses have begun with partner agencies and will continue through March 2020.

Train the Trainer dates were emailed out to stakeholders via Educators, Clinical Specialists, EMS Coordinators and Pre-Hospital Liaison Nursing staff. As of February 2020 PMAC, all scheduled TtT dates will have been conducted.

Agencies should be planning their 2020 Spring PUC training and be prepared to share the Policy and Procedures 2020 updates to their respective staff. EMS Provider agencies should submit their respective Spring 2020 calendars to REMSA. REMSA plans to support, monitor and facilitate individual agency trainers to deliver Spring 2020 training curricula.

**Education/Data Update: King Airway**

As with all policy changes REMSA has been monitoring data for protocol adherence, utilization and impact of system change. The consensus recommendation for King Airway particularly, was to collect data for 6 months of use following policy change. REMSA has monitored King Airway usage since October 1, 2019 change and there have been uses in the Out of Hospital Cardiac Arrest, there have been zero uses of King Airway in other patient types.

**ACTION:** Informational only, no action required by PMAC. Providers should take action to identify key staff facilitating agency based training, create training plans and their internal implementation schedule, and share this info with REMSA.
DATE: February 7, 2020

TO: PMAC

FROM: Misty Plumley, Senior EMS Specialist

SUBJECT: Updated PMAC Meeting for May 2020

Due to unforeseen scheduling conflicts, the May 2020 PMAC meeting needs to be rescheduled to May 11,

ACTION: PMAC should be prepared to receive the information and provide feedback to REMSA.