

3340 Glenwood Street, Eureka, CA 95501 (707) 445-2081 (800) 282-0088 FAX (707) 445-0443

The North Coast EMS Quality Improvement Program

April 2015 Plan

2019 Plan Update

2020-2021 Plan Update – 3-17-2022 DRAFT

Executive Summary

Quality improvement in Emergency Medical Services (EMS) is a process as much as an objective. North Coast EMS believes that all of our region's EMS participants wish to provide our communities with the best prehospital and hospital care possible. Together our agency and fellow EMS system participants have an ongoing responsibility to define - and redefine - the elements of the Quality Improvement Program (QIP) that help ensure optimal patient care, and to adopt a systematic approach to achieving this shared objective. This systematic approach includes an ongoing collaborative efforts to develop agreed upon measurements of a high quality EMS system.

The purpose of the North Coast EMS Quality Improvement Program (QIP) Plan is to identify individual components of the North Coast EMS System that can be measured and/or evaluated, regularly reviewed, and modified to ensure optimal EMS system performance. The North Coast EMS QIP Plan and the Annual QIP Plan Updates satisfy the requirements of Title 22, Chapter 12, Section 4 of the California Code of Regulations.

Table of Contents

I.	Executive Summary	1
II.	Table of Contents	2
III.	The Quality Improvement Regulations	4
IV.	North Coast EMS's Commitment to Quality Improvement.....	5
V.	North Coast EMS Quality Assurance and Quality Improvement Policies.....	5
VI.	North Coast EMS Quality Improvement Technical Advisory Coordination Structure.....	8
VII.	Matching quality improvement to local resources	9
VIII.	Constantly improving quality	
IX.	North Coast EMS Base Hospital and EMS Provider Quarterly Reporting.....	9
X.	Quarterly Focused Reviews	10
XI.	Just Culture	11
XII.	The Eight Quality Improvement Components (Structure, Committees and Mechanisms).....	12
A.	Personnel	12
1.	Certification.....	13
2.	Training	13
B.	Equipment and Supplies	14
1.	Ambulance stocking.....	14
2.	Communications Coverage	15
C.	Documentation	16
1.	Data Validation	16
2.	Security	18
D.	Clinical Care and Patient Outcome	18
1.	Treatment Guidelines	18
2.	Committee Structure	20
a.	Emergency Medical Care Committee (EMCC) – Lake County	20
b.	Medical Advisory Committees (MAC) & EMCC– Del Norte and Humboldt....	20
E.	Medical Oversight	21
F.	Skills Maintenance/Competency	22
1.	Scope of Practice.....	22
2.	Skills Utilization Benchmarking	22
3.	Skills- Advanced Provider.....	23
G.	Transportation/Facilities.....	23
H.	Hospital Diversion	24

I.	Specialty Care Centers Destination.....	24
J.	Public Education and Prevention.....	25
	1. Community Involvement	25
	2. Prevention Programs	25
	3. Patient Education.....	25
	4. Customer Satisfaction	25
K.	Risk Management	
	1. Issue Resolution Process.....	26
	2. System Monitoring.....	26
XIII.	North Coast EMS Quality Improvement Plan Matrix of Indicators	28
XIV.	Quality Improvement Goals and Objectives.....	28
XV.	Statewide Core Indicators	47

The Quality Improvement Regulations

Most if not all caregivers strive to ensure the care they provide is of the highest quality. Competing demands for limited human and material resources make it difficult, however, to dedicate the time needed to develop and maintain an effective quality improvement program. By adopting regulations that require all EMS system participants to develop a QIP Plan, the State provided a framework for the four principal institutions within the California EMS system - the California EMS Authority, the Local EMS Agencies, Base Hospitals, and Advanced Life Support Provider Agencies – to engage in meaningful and sustained quality improvement processes.

The Quality Improvement Regulations further define the EMS quality improvement framework by identifying eight components of the EMS System:

- Personnel
- Equipment and Supplies
- Documentation
- Clinical Care and Patient Outcome
- Skills Maintenance/Competency
- Transportation/Facilities
- Public Education and Prevention
- Risk Management

North Coast EMS's Commitment to Quality Improvement

As the Local EMS Agency (LEMSA) for Del Norte, Humboldt and Lake Counties, North Coast EMS ensures that our region's designated Paramedic Base Hospitals and authorized ALS Provider Agencies fulfill their requirement to adopt hospital or agency specific Quality Improvement Plans. It is the responsibility of our region's Base Hospitals and ALS Provider Agencies to engage in planning which encompasses the eight Quality Improvement components enumerated in the Quality Improvement Regulations and listed above.

The North Coast EMS Policy Manual, Base Hospital Agreements, and ALS Provider Agreements establish the regulatory and contractual basis for Quality Assurance (aka: Improvement) in each of the eight components listed within the California Quality Improvement Regulations. Additions or modifications to existing policies are initiated when opportunities for improvements are identified through the Quality Improvement Process. The following policies represent those most pertinent to achieving system improvement through the North Coast EMS QI process*:

- Personnel
 - Continuous Quality Improvement – North Coast EMS Policy # 2101
 - Certification/Accreditation/Authorization Process Policy # 4001
 - Certification Review Process Policy # 2109
 - Prehospital Care Medical Director and Nurse Coordinator Responsibilities Policy # 2109
 - Quality Assurance Committee Policy # 2110
 - EMT Incident Investigation, Determination of Action, Notification, and Administrative Hearing Process Policy # 4010
 - First Responder Certification Process Policy # 4202
 - EMT-I Certification Process Policy # 4302
 - EMT-P Accreditation to Practice Within the North Coast EMS Region Policy # 4603
 - MICN Authorization Maintenance Requirements Policy # 4704
 - Field Training Officer Authorization Requirements Policy # 4802
- Equipment and Supplies
 - First Responder/BLS Supply and Equipment Standard Policy # 2202
 - EMT-P Standard Drug/Intravenous Solution List Policy # 2205
 - Controlled Substances Policy # 2209
- Documentation
 - Chart Audit Guidelines Policy # 2106
 - Prehospital Care Report Policy # 2402
 - Access, Release, and Confidentiality of EMS Data Policy # 2403
 - Standing Orders and Radio Failure Reporting Policy # 2404
 - Contact Hospital Policy # 2501
 - Radio Communication Policy # 2502
 - Radio Communication Log Policy # 2403
- Clinical Care and Patient Outcome
 - Case Review Policy # 2104

- Cancellation and Transfer of Patient Care Policy # 2302
- Care of Minors in the Field Policy # 2303
- AEMT/BLS Determination of Death Policy # 2304
- ALS – Determination of Death Policy # 2305
- Patient Refusal of Service Policy # 2312

- Skills Maintenance/Competency
 - Continuous Quality Improvement – Providers/Hospitals Policy # 2101.1
 - Field Care Audit Guidelines Policy # 2106
 - Field Care Audit Guidelines (Category II Continuing Education) Policy # 2108
 - Training Program Approval Policy # 3001
 - Instructor Qualifications Policy # 3002
 - Testing Procedure Policy # 3003
 - AEMT/ALS Field Internship Procedure Policy # 3004
 - Student Eligibility to Enter an MICN Training Program Policy # 3602
 - MICN – Training Structure and Instructor Qualifications Policy # 3603
 - MICN – Training Program Required Hours and Content Policy # 3605
 - Continuing Education Provider Approval Policy # 3702
 - FTO Training Structure and Instructor Qualifications Policy # 3802
 - FTO Training Program and Course Content Policy # 3804
 - New Personnel Orientation and Field Preceptorship for MICN Policy # 4004
 - New Personnel Orientation and Field Preceptorship for EMT-P Policy # 4005

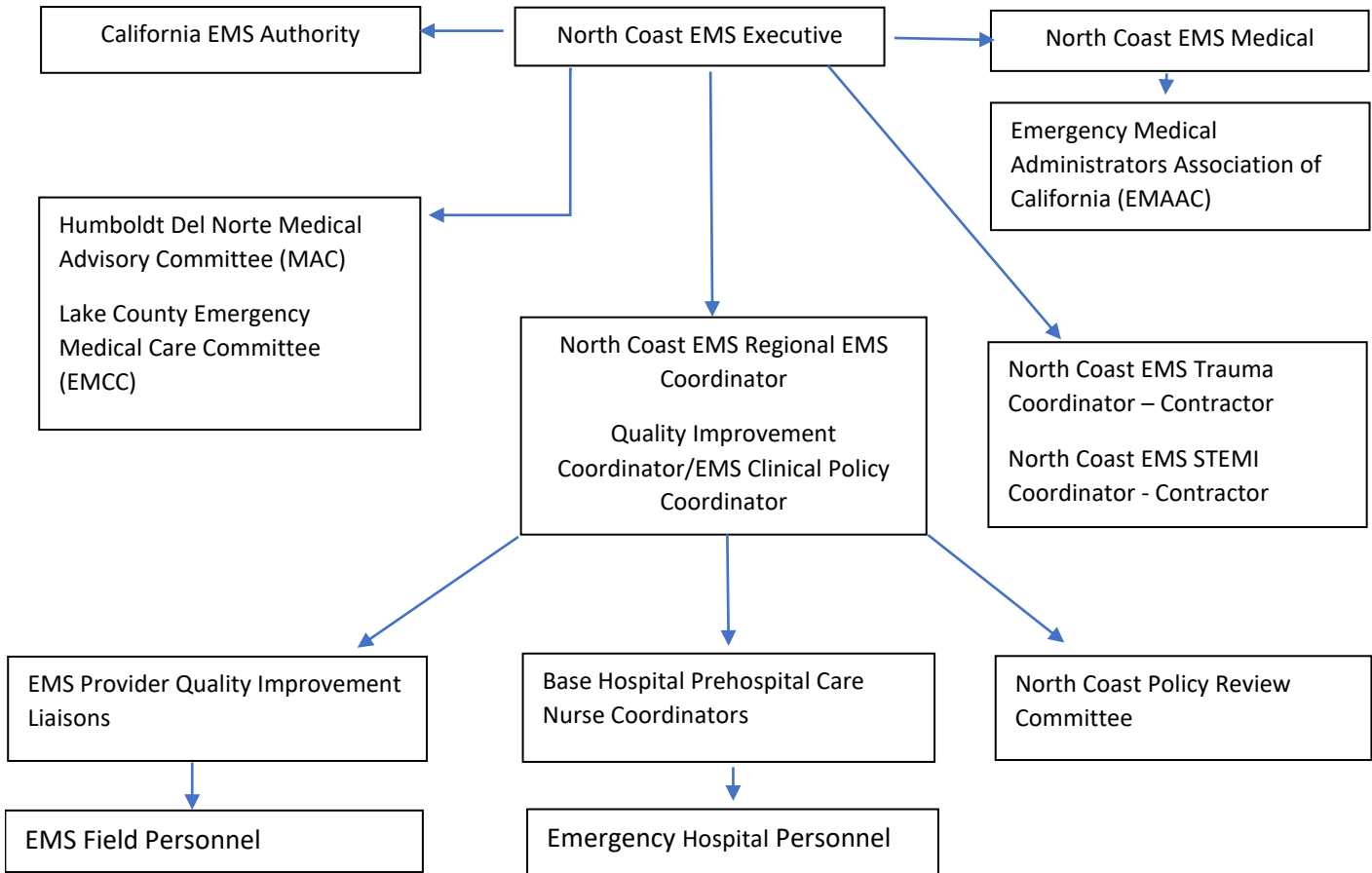
- Transportation/Facilities
 - Base Hospital Designation Policy # 2103
 - Application for Emergency Medical Dispatch Center Provider Accreditation Policy # 2201
 - Emergency Medical Dispatch Center Provider Accreditation Policy # 2201.1
 - Paramedic Transfer Provider Policy # 2203.2
 - EMS Aircraft Services Policy # 2206
 - EMS Aircraft Classifications and Definitions Policy # 2206.1
 - EMS Aircraft Services – Service Request/Dispatch Center Guidelines Policy # 2206.2
 - EMS Aircraft Services – Patient Care and Destination Policy # 2206.3
 - EMS Aircraft Services – Transportation Criteria Policy # 2206.4
 - Interfacility Transfer Procedure Policy # 2208
 - STEMI Receiving Center Designation Criteria Policy # 2215
 - Reduction of Closure of Hospitals Policy # 2301
 - Destination Determination Policy # 2309
 - MCI Communications Plan Policy # 2506
 - Med Net Communications Guidelines Policy # 2508
 - Trauma Triage Destination Guidelines Policy # 7000
 - Trauma Center Marketing and Advertising Policy # 7002
 - Repatriation of Stable Trauma Service Health Plan Policy # 7003

- Trauma Registry Data Collection and Management Policy # 7004
- Trauma Quality Assurance/System Improvement Policy # 7005
- Patient Care – Trauma System Rapid Re-triage of Critically Injured Patient Policy # 7007

- Public Education and Prevention
 - Injury Prevention Programs Policy # 7006

*Additions or significant modifications to existing policy are subject to a required public comment period per North Coast EMS Policy Review and Development Policy # 2006.

NORTH COAST EMS QUALITY IMPROVEMENT TECHNICAL ADVISORY COORDINATION STRUCTURE



Matching quality improvement to local resources

The EMS Quality Improvement Regulations recognize the significant differences in size, resources, and needs that distinguish EMS jurisdictions, hospitals, and providers. For the many different jurisdictions and EMS entities within the State, quality should be defined according to a baseline assessment and different starting points. The quality improvement of any EMS system participant should be measured against that participant's prior quality achievements.

Similarly, there are differences between hospitals and providers within the North Coast EMS region. North Coast EMS therefore encourages designated Base Hospitals and authorized ALS Providers to set objectives and build hospital and provider QI teams, in accordance with the goals set by their leadership, and commensurate with their quality improvement training, experience of their hospital and agency, and existing QIP Plans.

Constantly improving quality

It is not a simple matter to separate quality assurance from quality improvement. Typically, quality improvement and quality assurance responsibilities are assumed by the same individuals or teams within an institution, organization, or agency. Regardless, the distinction between these two quality objectives is less important than is the need for those individuals with "quality" responsibilities to challenge the notion that quality expectations will ever remain static. It is essential that QI leaders question today's goals and benchmarks and seek to continuously refine them considering new evidence or evolving standards.

In devising a Regional QIP Plan, North Coast EMS worked with system participants through our primary EMS community, the Humboldt/Del Norte Medical Advisory Committee, the Lake Emergency Medical Care Committee, and other committee forms, to establish a system of quarterly reporting on the eight Quality Improvement components and subsequently adopted a concurrent periodic "focused review." These reports have been delayed or temporarily discontinued by the COVID pandemic and staff turnover, but periodic QIP Reports are an important QI monitoring tool that verifies ongoing patient care and EMS system quality review.

Periodic focused reviews

Focused reviews generally target clinical or operational issues, such as the treatment of pain or the adoption of internal hospital or provider agency training and guidelines for the treatment and transport of patients potentially exposed to an emerging disease. As staff time permits, periodic review of focused QI Reports gives North Coast EMS the opportunity to identify potential EMS system needs and enhancements.

Because the reviews are conducted periodically, regional hospital and provider liaisons are provided with routine opportunities to devise review criteria and methodologies. As staff time permits, North Coast EMS distributes a summary of submitted reviews, highlighting the most informative or well-designed reviews, and allowing all system participants an opportunity to compare their review approaches to their colleagues and for best practices to emerge.

Frequently review topics are drawn from discussions at regional prehospital meetings like the Medical Advisory Committee or Emergency Medical Care Committee meetings. On other

occasions review results inform the agendas of state or regional EMS meetings. On occasion, North Coast EMS uses the review as an opportunity to ensure that base hospitals and provider agencies have familiarized themselves with an issue of concern to our agency, to other LEMSAs, and/or to the California EMS Authority. On other occasions, North Coast EMS uses the review to solicit input into policy additions or modifications.

In selecting a topic for region-wide focused review, North Coast EMS gives preference to those topics that encourage reviewers to work with their hospital or provider colleagues. Frequently, for instance, North Coast EMS chooses focused reviews that require input from hospital or agency disaster planners. In framing the focused review “question” North Coast EMS promotes a “team” approach to devising and conducting the hospital or provider agency specific review.

Just Culture

Progressive quality improvement methodologies have long recognized that failures to achieve sought after quality goals or to meet “industry” standards are generally not due to the failures of individuals, but instead can be more accurately and constructively identified in the procedural or structural shortcomings within their work environments. In seeking solutions to problems or opportunities for improvement, North Coast EMS works with other EMS System participants to analyze the root causes of problems, and looks for the means to optimize the energy, talent, and dedication of all our system partners.

Identifying and Prioritizing Opportunities for Improvement

EMS system participants engage in a wide and varied assortment of activities. Based on their own personnel and material resources, each institution or agency can best achieve improvement by carefully targeting quality improvement goals and objectives.

North Coast EMS encourages regional base hospital and EMS provider agency Quality Improvement Liaisons and other key personnel to adopt a Quality Improvement Program Plan structured according to the eight system components. North Coast EMS is responsible for planning and overseeing regional systems that encompass multiple EMS components. EMS Subspecialty Care Systems, such as Trauma, STEMI, Disaster or EMS for Children, and the Regional EMS System as a whole, include most if not all EMS quality improvement components. Because responsibilities for these systems fall to different North Coast EMS representatives - who in turn engage with different State, regional, other LEMSA, local hospital, and local EMS provider agency representatives - it is practical to adopt a North Coast EMS systemic quality improvement framework structured according to QIP Regulations and individual EMS system needs and capabilities.

Though it is helpful to adopt a conceptual framework to structure quality improvement efforts, it is essential that chosen framework not dictate those quality improvement objectives that receive the most agency attention or focus. North Coast EMS strives to ensure that those quality needs most pertinent to optimal patient care and the support of prehospital and hospital personnel be prioritized. Regardless of origin of the identified quality improvement opportunity, pursuit of that opportunity should then benefit from a structured quality improvement approach

The Eight Quality Improvement Components (Structure, Committees and Mechanisms)

Personnel

North Coast EMS is committed to facilitating the certification and employment of the highest possible level of qualified prehospital personnel within our region. This objective is accomplished, in part, by providing clear requirements for regional training of Public Safety personnel, certification of EMT-Is and accreditation of state licensed Paramedics in accordance with State regulations, and authorization of Mobile Intensive Care Nurses (MICNs) following local policy (relevant forms and policies are easily accessible to a visitor to North Coast EMS's web site www.northcoastems.com). North Coast EMS also approves prehospital Continuing Education (CE) Providers, Field Training Officers (FTOs) and First Responder training consistent with established standards or guidelines. North Coast EMS supports prehospital provider education, both directly through occasional training programs, and indirectly through approval of training programs, and the personnel requirements included in provider agency and hospital agreements.

North Coast EMS participates, as staff time allows, in state committees and task forces, and reviews and comments on proposed changes to the state regulations concerning EMS certification, licensure, and accreditation. North Coast EMS also publicizes and solicits comment from other North Coast EMS system participants concerning possible state or local EMS personnel changes to ensure that new State requirements are implemented, and local training needs are addressed. Availability of training in the more rural and remote communities is an ongoing problem. North Coast EMS regularly alerts system participants to changes in State requirements that may affect their personnel or potential hires.

The North Coast EMS region shares challenges faced by other rural areas in assuring access training, maintaining certification, accreditation, and licensure, particularly testing requirements. As with all noteworthy issues, interested parties are advised via memos, regular meetings (Medical Advisory Committee {MAC} for Humboldt and Del Norte Counties, Emergency Medical Care Committee {EMCC} for Humboldt and Lake, the North Coast EMS web site, and other mechanisms.

Certification/Accreditation

North Coast EMS prioritizes the processing of new certifications/accreditations to support providers staffing requirements. Time allowed for certification/accreditation "turn around" is usually three working days or less, and in all cases North Coast EMS accomplishes these certifications/accreditations well within the maximum allowable times. Provided certification/accreditation documentation is properly filed, North Coast EMS attempts to fulfill special provider requests for accelerated personnel accreditation. North Coast EMS continues to assess and adopt enhanced methods to streamline these processes, recently including discontinuation of the Prehospital Medical Care Director signature requirement for new Paramedics and FTOs.

Local accreditation of new Paramedics includes requirements that the individual receives focused orientation to local practices and protocols. New Paramedics are proctored by locally approved FTOs who must meet minimum requirements and be approved by their provider agency. Local FTO training program instructors work closely with North Coast EMS to periodically enhance the FTO training program. Prior to recommending local accreditation of

Paramedics new to the area, the North Coast EMS Coordinator reviews at least five (5) of the new Paramedics' prehospital care reports, and ten (10) in the case of newly State licensed Paramedics. In addition, the North Coast EMS Regional Coordinator, acting as the agency QI Coordinator, takes concerns to the North Coast EMS Regional Medical Director who may require additional evaluation or orientation of the newly accrediting Paramedics.

Training

North Coast EMS approves and monitors (pending staff time) all regional First Responder, Public Safety First-Aid, EMT-I, Emergency Medical Dispatch (EMD), EMT-Paramedic, FTO and MICN training programs. In addition to the above courses, North Coast EMS approves policies that include training requirements for the State approved expanded Basic Life Support (e.g., Naloxone, Epi-Pens, finger sticks) and Advanced Life Support scope of practice (e.g., Heparin/Nitro Drips and Blood Products, Ketamine, etc.) North Coast EMS strives to ensure that training programs meet the State and National standards.

North Coast EMS has developed policies regarding required training program approval of Public Safety, First Responder, EMD, EMT-I, EMT-P, FTO and MICN training programs, consistent with state laws, regulations and/or local policy. As time permits, Agency staff attempt to meet with each of the newly approved training program personnel to discuss California state laws and regulations, North Coast EMS policies and procedures, and expectations for training. North Coast EMS personnel monitor each training program to the extent possible, optimally followed by review of written evaluation results. North Coast EMS also approves CE providers following the EMSA CE Regulations. There are around 40 approved CE providers.

Students attending courses overseen by North Coast EMS are encouraged to complete surveys evaluating the instruction received in all approved training programs. Survey results can be used to guide policy and procedural changes to improve training program effectiveness and the overall EMS System.

Due to stagnant staff size and new state mandates and local priorities, North Coast EMS has been unable to directly monitor approved training programs for several years other than for cause. Increased funding and FTE's are needed to do so.

Equipment and Supplies

Ambulance stocking

Requirements for the stocking, maintenance and security of prehospital equipment and supplies are promulgated in North Coast EMS Policies 2202 (First Responder/BLS Supply and Equipment Standard) 2205 (EMT-P Standard Drug/Intravenous Solution List), and 2209 (Controlled Substances). North Coast EMS may conduct spot check visits at the discretion of the North Coast EMS Executive Director and Regional Medical Director. These visits are generally made in response to Case Review requests when concerns, e.g., about stocking or narcotic security are brought to the Agency.

Medication and supply chain shortages over the last few years have resulted in situations when regional ALS Providers must consider how to address situations when they do not have access to ambulance stocks they need to comply with North Coast EMS treatment guidelines and to treat their patients properly. We continue to work with our regional ALS Provider agencies to ensure inventory monitoring with the special attention to anticipating possible shortages.

Requests to consider the elimination, or inclusion of, drugs or supplies to the required list are reviewed by the Agency. During the years of 2020 and 2021 the North Coast EMS Regional Medical Director took several requests to expand the local scope of practice to Emergency Medical Directors Association of California (EMDAC) for discussion. The EMDAC Scope of Practice Committee, and the EMSA, approved North Coast EMS requests for the additional medications and Covid related policies.

Communications Coverage

North Coast EMS provides oversight and consultative support for medical communications within the North Coast EMS region between prehospital and Base Hospital personnel. North Coast EMS Policies 2404 (Standing Orders and Radio Failure Reporting), 2501 (Contact Hospital), 2502 (Radio Communication). See - "Clinical Care and Patient Outcome –Medical Oversight" below.

North Coast EMS also helps to coordinate region wide maintenance and enhancement of the Med Net Communications system. All agency participation agreements with Paramedic Base Hospitals and ALS Providers specify communications requirements, including. The Paramedic Base Hospitals are required to maintain their own Emergency Department Med-Net radios (with one exception due to a dysfunctional Mtn. Top Repeater, cell phones are used in Del Norte County) and recording systems; ALS Providers maintain their own mobile and portable Med-Net radios; and, each county is responsible for providing maintenance for the Med-Net Repeaters located within their County. North Coast EMS maintains a Med Net Trust Fund to assist with Med-Net Mtn. Top Repeater replacement or maintenance. The Med-Net System, however, is utilizes old technology and is becoming more and more difficult to maintain, and alternative or new field to hospital communications systems will be needed in the future.

North Coast EMS also facilitates coordination of Public Safety Answering Points (PSAPs) and 9-1-1 dispatch, and approves Emergency Medical Dispatch (EMD) training programs at Cal-Fire in Fortuna and jointly with Napa County EMS for Lake County.

Documentation

Data Submission and Validation

As part of the required EMSA General Fund contract, North Coast EMS has consistently submitted quarterly reports that updated and addressed contract Objectives and identified significant EMS Plan changes. We also submit the annually required Regional EMS, STEMI, EMSC, QIP (this report) and Trauma Plan Updates to the EMSA, and HPP Disaster progress reports to CDPH. Please note that these required submissions were waived or delayed due to the pandemic.

Prior to submitting most documents to the EMSA, North Coast EMS circulates draft copies to

providers, hospitals, county representatives and other interested parties with the special knowledge needed to identify omissions, inaccuracies, and/or answer questions.

Most documents circulated by the Agency are also made available on the North Coast EMS website, and we are attempting to make sure this is done more consistently. North Coast EMS also solicits suggestions for additions or changes to the website. Most site updates are performed by the North Coast EMS Executive Assistant and the Regional EMS Coordinator.

North Coast EMS was the first LEMSA to successfully transmit CEMSIS data to the State EMS Authority EMS data repository. In the years following this success, North Coast EMS continues to meet the State's requirements for e-PCR, and when required, hospital data submission, such as: Core Measures, C.A.R.E.S., APOT and Trauma Registry.

The cost to maintain e-PCR data platform is now being shared with all ALS Providers who are required by statute to ensure LEMSA access to their prehospital data. The Regional EMS Coordinator, STEMI and Trauma Contractors, and others, continue efforts to ensure that accurate data is entered on all EMS System patient contacts.

Security

Requests for documentation by outside individuals or entities are answered according to North Coast EMS's Policy 2304 "Access, Release and Confidentiality of EMS Data."

North Coast EMS maintains disclosure and password protected Case Review documentation that is provided on a need to see basis to individuals who have previously signed the Agency's confidentiality agreement. Rarely requested subpoenaed documentation is released only after consultation with assigned County Counsel. Disclosure protected committees, such as: the Humboldt-Del Norte and Lake Trauma Advisory Committees (TACs) and the STEMI/Stroke Committee also confidentially discuss pre-reviewed educational cases selected to enhance the EMS System.

Email communications, including patient specific information, by North Coast EMS personnel utilizing the northcoastems.com email address is encrypted, and confidential external emails can be encrypted as well. Prehospital data is password protected and access is limited to office personnel and restricted and limited access is provided to hospital and prehospital personnel for legitimate quality assurance and quality improvement purposes, according to relevant North Coast EMS quality assurance and quality improvement Policies (see Policies 2100 – 2111) and pursuant to Evidence Code Section 1157.7. Trauma Registry and C.A.R.E.S. data is also protected. Only authorized personnel may access the registry program.

Clinical Care and Patient Outcome

Treatment Guidelines

North Coast EMS directly influences patient care through the development and revision of Treatment Guidelines (including medical protocols, procedures and policies). Changes to Treatment Guidelines may be inspired by the needs of our providers, suggestions from base hospitals, ongoing review of the EMS literature including changes recommended by institutions and associations such as the AHA and NAEMSP, and discussion at conferences and meetings. Among the most important sources of input and sounding boards for changes are the EMSA, EMS Commission, EMSAAC, EMDAC, Trauma Workgroup, and the EMSC Coordinators meetings and conferences. Other meetings regularly attended by North Coast EMS staff, and whose discussions may provoke or contribute to policy changes include, EMCC, MAC, TAC, Fire Chiefs Association, STEMI/Stroke, Child Death Review, Injury Prevention, Child Passenger Seat, and the Humboldt/Del Norte Redwood Coast, and Lake Healthcare Coalitions (RHCs). Significant changes to the Treatment Guidelines are reviewed by the Policy Review Committee administered by the Regional EMS Coordinator and reviewed by the Regional Medical Director for clinical efficacy and the Executive Director for administrative consistency.

National and State efforts to synchronize the scopes of practice of various EMS field providers are generally driven by research conducted, and needs identified, in densely populated urban centers. While North Coast EMS endorses the adoption of evidence-based EMS clinical interventions, we recognize that our local providers confront staffing limitations and long transportation times that defy simple comparisons with urban circumstances. Frequent changes in national and state EMS standards, as well as the evolution of scopes of practice for all levels of field care providers have challenged our small staff. To address a growing backlog of policy revisions, North Coast EMS contracted with a web designer who converted the North Coast EMS website to “Word Press,” an intuitive program that facilitates web site changes, including frequent policy updates. This change means that the North Coast EMS Executive Assistant and the Regional EMS Coordinator can more readily shepherd policies through the revision process, including uploading new and revised policies to the North Coast EMS website.

Committee Structure

The following committees are tasked with evaluating and offering input into a variety of EMS related issues, including clinical, operational, and administrative. Although the entire committee may discuss general clinical matters, specific cases are only dealt with in a disclosure protected sitting as described in Security section above.

Emergency Medical Care Committee (EMCC), Trauma Advisory Committee (TAC), Inter-facility Transfer (IFT) and Priority 1 – Lake County

The statutorily authorized Lake County EMCC is an advisory body to the Lake County Board of Supervisors and North Coast EMS. The Committee is charged with the review ambulance operations, first aid/CPR training and emergency medical care provided in Lake County. The EMCC is composed of North Coast EMS personnel and Lake County Board of Supervisors appointees, and includes representatives of public and private services, the health department, local hospitals, and other agencies involved in EMS. The Lake IFT and Priority 1 Committees are locally overseen subcommittees of the EMCC and the Lake TAC is advisory to North Coast EMS

specific to Trauma System related matters.

The EMCC and TAC Committees can be disclosure protected and used to discuss confidential QI patient information. This regularly occurs in the TAC meetings.

EMCC and Medical Advisory Committees (MAC) – Del Norte and Humboldt

The Humboldt-Del Norte EMCC is an advisory body to the Humboldt and Del Norte County Boards of Supervisors and North Coast EMS. The EMCC is charged with the responsibility to review ambulance operations, first aid/CPR training and emergency medical care provided in the Del Norte and Humboldt Counties. The EMCC is composed of North Coast EMS personnel and Humboldt County Board of Supervisors appointees, and includes representatives of prehospital and hospital agencies involved in EMS.

The Humboldt and Del Norte Medical Advisory (MAC), TAC and STEMI/Stroke Committees are Subcommittees of the Humboldt County EMCC. The MAC, TAC and STEMI/Stroke Committees are the primary advisory bodies to North Coast EMS in Humboldt and Del Norte Counties for overall EMS, Trauma, and STEMI Subsystem oversight, coordination and operations. Members on these subcommittees consist of hospital, Trauma Center, STEMI Receiving Center, ALS Provider, fire, public health and other representatives. Del Norte County also has a MAC-North Committee that may periodically to discuss and resolve EMS related issues specific to Del Norte County; this group has not met for several years.

The EMCC, TAC and STEMI/Stroke Committees can be disclosure protected and used to discuss confidential QI patient information. This regularly occurs during TAC and STEMI meetings.

North Coast EMS Policy Review Committee - The Committee attempts to meet quarterly and includes representation from each of our region's 3 constituent counties.

Medical Oversight

North Coast EMS oversees the Regional QIP and pursuant to statute, oversee the medical control of the Regional EMS System. Clinical aspects of these program are overseen by the Regional Medical Director and administrative by the Executive Director. Medical oversight and QI are critically important components of the statutorily required LEMSA responsibility for EMS System evaluation. The EMS System and all subsystems (see the Regional EMS, Trauma, STEMI and EMS for Children Plan Updates) have extensive policies, procedures and processes to oversee patient care, utilize data and case review processes, and other tools to promote and enhance overall EMS System effectiveness. Virtually all aspects of North Coast EMS operations are designed by law, regulation, policies and procedures to oversee EMS System clinical care, including : pre-approval and monitoring of training programs; certification and recertification of personnel; approval of EMD programs; authorization of ALS Providers; designation and monitoring of Paramedic Base Hospitals, Modified (non-MICN) Base Hospitals, Trauma Centers, Emergency Departments Approved for Pediatrics (EDAPs) and the STEMI Receiving Center in Eureka, Cal; etc.

Additionally, North Coast EMS provides retrospective medical oversight through the case review process (North Coast EMS policy 2104), through review of new and accrediting paramedics 10 and 5 “calls”, i.e. the PCRs written by paramedic interns and paramedics prior to accreditation, through review of calls using the prehospital data base for specific chief complaints or according to other criteria, and through policies and agreements obliging base hospitals and providers to provide prospective, online and/or retrospective review and input. All hospitals within the region have access to all patient care charts of patient brought their facility. Over the last two years, no hospital has reported that they were unable to access and locate a needed patient chart with the except of very temporary times. All vendors who are providing e-PCR programs outside the ICEMA ImageTrend program are responsive to inquiries and have worked closely with North Coast EMS to resolve uploading and posting errors.

Skills Maintenance/Competency

Scope of Practice

North Coast frequently receives requests to consider the addition or elimination of skills or medications from our regional EMS scope of practice. Each of these requests receives careful consideration, although many are immediately identified as required or prohibited by Title 22.

The North Coast EMS Regional Medical Director may make determinations about additions or eliminations independently, but generally these requests receive further review among office staff and the EMCC, MAC, TAC, etc., including an evaluation of the EMS literature, relevant prehospital data available through our prehospital data collection system, and hospital data collection via the State Trauma Registry and other mechanisms. Further evaluation may require input from fellow LEMSAs and the regional EMS community, and in the past North Coast EMS has considered the relevant medical literature, local prehospital care data, national and state best practices, and the results of queries of field and hospital personnel to determine whether modifications in scope could be justified by an objective evaluation of patient presentations, response and transport times, and existing prehospital intervention options. All new Basic Life Support and Advanced Life Support scope additions must be approved by the EMDAC Scope of Practice Committee and the EMSA through an application process.

North Coast EMS has determined that “trial studies” require more staff time than is feasible for the foreseeable future and will not attempt these unless the need is decisive, or the trial is done in conjunction with one or more other LEMSAs with whom North Coast EMS may divide administrative duties. In certain cases, the North Coast EMS Regional Medical Director may elect to request a further review of possible additions or eliminations by EMDAC and/or EMSA.

Recent scope of practice additions are included in the most recent Regional EMS Plan Update.

Skills Utilization Benchmarking

North Coast EMS follows all relevant state statutes and regulations, including skills benchmarking when and if appropriate. The Agency will also remain attentive to ongoing benchmarking efforts documented in the EMS literature and in the national, state and LEMSAs experience, and consider benchmarking standards as needed.

Skills – Advanced Provider

See “Skills Utilization Benchmarking” above.

Transportation/Facilities

Two of the counties, Humboldt and Lake, in the North Coast EMS region have a Board of Supervisors approved ambulance ordinance that provides a mechanism to permit and monitor emergency medical transportation services. Del Norte County has an ambulance specific contract with the local ambulance service.

North Coast EMS assists Counties, when possible, through its QI System.

The Agency also approves all ALS Providers; approves and monitors ALS Provider and Base Hospital QIP Plans and reviews periodic updates; and designates Paramedic Base Hospitals, Trauma Centers, a STEMI Receiving Center and EDAPs. We conduct periodic site surveys to subspecialty centers and, due to chronic understaffing, to ALS Providers and Base Hospitals for cause only. We also prepare and review APOT, Trauma Registry, cardiac and other relevant prehospital and hospital data.

North Coast EMS developed and submitted the Humboldt County (Exclusive Operating Area) Transportation Plan to EMSA. It was approved, contracts were executed, and effective January 1, 2022, non-competitive exclusivity was granted to City Ambulance of Eureka, Inc. in the Eureka zone (contingent on ongoing coverage of the Fortuna and Garberville subzones), and, to Arcata-Mad River Ambulance in the Arcata zone. The Agency has entered into the monitoring phase. North Coast EMS also reviewed and determined that Del Norte Ambulance is eligible for non-competitive grandfathering and we are currently working with County leadership to review potential EOA options, including competitive bid.

Hospital Diversion

North Coast EMS does not recognize hospital diversion, i.e. patients re-directed to more distant hospitals due to ED saturation. Automatic hospital bypass or redirection is permitted only in case of internal hospital disaster and must be documented by the hospital to North Coast EMS according to North Coast EMS policy 2309.

Specialty Care Centers Destination

See the North Coast Regional EMS Plan, Trauma System Plan, STEMI Plan and EMSC Plan Updates.

North Coast EMS has four designated Trauma Centers: Sutter Lakeside Hospital as a Level IV, St Josephs as a Level III, Mad River Community Hospital as a Level IV, in collaboration with the State of Oregon, Sutter-Coast Hospital as a Level IV Trauma Center. North Coast EMS has defined destination determination for critical trauma patients in Policy 7000A and registry data collection and management requirements in Policy 7004. The Agency also recent adopted a Trauma Re-triage Policy.

Emergency Department Approved for Pediatrics (EDAP) was established in the North Coast EMS region in 1989. All seven hospitals are currently EDAP designated.

North Coast EMS recently re-activated the process to designate St. Joseph Hospital in Eureka as a STEMI Receiving Center.

Public Education and Prevention

Community Involvement

North Coast EMS participates as staff time allows in Humboldt County community involved groups, such as Childhood Injury Prevention, Child Passenger Safety Committee, Child Death Review Team, and the Water Safety Coalition. Involvement in the other regional counties is limited at this time but all Trauma Centers and EDAPs are required or encouraged to provide public educational opportunities.

Prevention Programs

See above. North Coast EMS recently worked and continues to work closely with Public Health the EMS communities on mitigating the impact of the pandemic.

Customer Satisfaction

In the development and implementation of all Agency programs, North Coast EMS continually solicits comments and questions from system participants. During MAC, EMCC and other meetings, and in their periodic QI report submissions, North Coast EMS region base hospitals and ALS Provider agencies routinely make suggestions regarding North Coast EMS administrative practices, and North Coast EMS routinely adopts administrative changes based on these recommendations.

North Coast EMS encourages input from the public and thoroughly reviews concerns brought to the agency by members of the public. Generally North Coast EMS will discuss these concerns with the provider agency or hospital in question, and will ask that identified problems be addressed, that a report be made to North Coast EMS and that the member of the public who initiated the review be contacted and provided with relevant non-confidentiality protected information.

Risk Management

Issue Resolution Process

North Coast EMS requires that all system participants to document time/date specifics for all their quality concerns. North Coast EMS encourages all issues to be resolved between parties directly affected. When this approach proves impractical or impossible for any reason, or when local issues may benefit from system wide review or changes, North Coast EMS may assume responsibility for review and resolution. In cases where issues may be beyond the resources or jurisdiction of North Coast EMS (generally those concerning paramedic licensure) North Coast EMS advises EMSA.

Resolution of all issues includes a review of all relevant State regulations, North Coast EMS policy and prior practice. Due process is afforded all concerned individuals and agencies.

System Monitoring

North Coast EMS is responsible for overall evaluation, planning, maintenance and enhancement of the EMS System, and virtually all activities are designed to continuously improve patient care

and best practices. North Coast EMS has several EMS system evaluation programs and tools in use:

ImageTrend, the electronic prehospital care reporting system used to record prehospital care patient documentation.

Training and CE programs are evaluated based on state standards, agency policies and procedures, site visits and written reports as needed.

ALS providers are evaluated based on state standards and written reports, and have approved CQI Programs in place. Site visits are conducted if needed, such as for a new provider or to investigate problems. The agency also conducts certification and accreditation reviews of personnel.

Base hospitals are evaluated based on state standards, site visits and written reports, and all facilities have written participation agreements with North Coast EMS. These site visits are no longer possible other than for cause.

The EDAP Program evaluates pediatric capabilities of EDs based on local standards and state regulations, site visits and reports. All EDAPs have written participation agreements with North Coast EMS and five of seven were surveyed this last year.

The Trauma and STEMI/Stroke Programs evaluate trauma and STEMI patient care based upon local standards and state regulations, site surveys and reports. All have written agreements with North Coast EMS and three of the four Trauma Centers were surveyed this last year. A site survey to the STEMI Center, the other two EDAPs and the remaining Trauma Center is planned for next year.

North Coast EMS's Executive Director, Regional Medical Director and Associate Director participate on various committees at the State level to improve EMS system evaluation mechanisms statewide. North Coast EMS staff routinely review and provide comments on draft documents distributed by the State EMS Authority.

North Coast EMS has implemented and will monitor provider and hospital compliance with the QIP regulations. As part of this program, North Coast EMS requires periodic reporting from each provider and hospital's QIP activities. These summaries are reviewed by the Agency as staff time allows to identify targets for county or region wide improvement that can be pursued jointly by all concerned system participants.

North Coast EMS Quality Improvement Plan Matrix of Indicators

Quality Improvement Goals and Objectives

North Coast EMS has a long evolving and very robust Quality Improvement Program (QIP) that currently follows the recently adopted State QI Regulations. The regulations require development of a QIP Plan with Annual EMS Plan Updates. This document is the most current Update to the EMSA approved QIP Plan. North Coast EMS is also required to review and approve ALS Provider and Paramedic Base Hospital QIP Plans pursuant to state regulations, and we uniquely require periodic QIP Reports of those same entities to ensure ongoing quality improvement processes are in place and active. As stated previously, virtually all North Coast EMS activities are designed or influenced by the overall QIP Plan: training, personal certification, approval or designation of EMD, prehospital responders, hospitals, data review, etc.

More generally, EMS System quality improvement is best conceptualized as a cyclical process involving the identification of quality improvement objectives, development of the Quality Improvement Program (QIP) Plan to achieve those objectives, implementation of the quality improvement objective plan, an assessment of the results of that plan implementation, and the further identification of quality improvement opportunities – e.g., a refinement of the QIP Plan and updates to it, based on assessment results and state standards. Validating the value of EMS community quality improvement efforts benefits is achieved through outside oversight, when feasible, and an ongoing public discussion of the cyclical quality improvement process. That public discussion encourages continued public, EMS community, and political leadership support for the use of system personnel and material resources to achieve identified quality improvement objectives.

Based on input and indicators from EMS system participants, and from quality assurance and improvement mechanisms – including but not limited to priorities established by federal objectives, the California EMS Authority, discussions with administrative and medical counterparts at EMSAAC and EMDAC meetings, input from the North Coast EMS Governing Board, local EMS System participants, the disclosure protected case review processes, and electronic system data collected through ImageTrend, the State Trauma Registry and other modalities - the North Coast EMS Executive and Medical Directors establish the North Coast EMS quality improvement goals with identification of specific staff and/or contractor leadership. The overall administrative process is overseen by the Executive Director and Regional EMS Coordinator.

The following North Coast EMS Quality Improvement Plan Matrix of Indicators defines our agency's current and ongoing goals and quality improvement priorities, along with the objectives established to meet those goals, the staff or contractor (**in bold**) with primary responsibility for coordinating the objective, the team members, the metric adopted to measure progress towards achieving the objective, and the individuals, agencies or organizations who will receive reports on progress toward achieving the objective:

North Coast EMS Quality Improvement Plan Matrix of Indicators

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 1 <i>Enhance processes for the evaluation and improvement of the EMS system</i></p>	<p><i>Periodic (quarterly if staff time allows) QI Reports submitted by ALS Provider QI Liaisons and PCNCs, or assigned personnel. Focused topic selected by Regional EMS Coordinator with input from providers and the Regional Medical Director. Copies submitted to PCMD, PCNC and Regional EMS Coordinator for review.</i></p>	<p>NCEMS EMS Coordinator, Provider QI Liaisons, PCMDs, PCNCs, Regional EMS Coordinator.</p>	<p>90% submission by Provider QI Liaisons to PCNCs with copies to PCMD, NCEMS. Improvement in compliance noted. Continued need to prompt certain provider agencies fortimely reporting. Unable to document % compliance currently due to limited staff time. 2017 In collaboration with Eureka mediadesign.com have developed a program to allow for online QI Report submissions and tracking of those reports. We anticipate that the system will be operational at the beginning of 2018. This system is designed to speed the evaluation of submissions. 2018 Due to a serious illness of the Eureka mediadesign.com staff, this project has been delayed indefinitely. 2020/2021 This project is once again being reviewed to allow provider liaisons to submit QIPs Reports electronically in a standardized format.</p>	<p>NCEMS Executive Director, NCEMS Medical Director</p>

	<p><i>Consistent review of provider hospital quality improvement reports to identify trends and capture provider and hospital recommendation</i></p>	<p>NCEMS EMS Coordinator, Provider QI Liaisons, Base Hospital PCNCs</p>	<p>90% review of provider and hospital QI Reports Due to limited staff time, and time required to solicit late reports, unable to review all submissions. Approximate review of 50% of submitted reports. 2017 Reviews continue to be approximately 50% due to time limitation. As described above, the system for online submission should allow those submissions to be reviewed more quickly. 2018 No change in the status of this objective. Fully reviewing all submissions remains a challenge due to limited available staff time. 2019 No change from previous year. Most submissions are reviewed. There may be opportunities to share in the review of submissions with the NCEMS EOA Oversight Officer once the EOA Contract is completed and signed by the Humboldt County EOA providers. 2020/2021 Limited submissions of quarterly reports from agencies and hospitals. Numerous hurdles and staff shortages due to COVID responses. 100% of submissions were reviewed.</p>	<p>Provider QI Liaisons, Hospital PCMDs/PCNCs , NCEMS Executive Director, NCEMS Medical Director, Executive Assistant (webpage posting)</p>
	<p><i>Consistent re-evaluation of provider and hospital QI plans</i></p>	<p>NCEMS EMS Coordinator, Provider QI Liaisons, Hospital PCNCs</p>	<p>Annual 100% internal review and revision of provider and base hospital QI Plan Updates by provider QI Liaisons and Hospital PCNCs to include provider and</p>	<p>Re-submission of QI Plan Updates by Provider Liaisons and Hospital PCNCs to Regional EMS Coordinator as needed.</p>

			<p>hospital specific indicators Currently working with PHP web designerto implement an onlinesystem for provider and hospital plan revision.</p> <p>2017 Have initiated soliciting QI Plan resubmissions using the Online QI Plan Assistant developed with Eureka mediadesign.co m . This system, designed in collaboration with other LEMSA QI representatives, is nowavailable for use by other interested LEMSAs.</p> <p>2018 NCEMS has used recent QI Focused reviews to concentrateon implementing measures to address and mitigate medications shortages.Further work on provider QI Plan revisions should recommence in the first half of this fiscal year.</p> <p>2019 Due to priority being given to STROKEand other QI considerations, QI Focused Reviews havebeen directed towards these.</p> <p>2020/2021 This project is once again under review to assist providers and hospitals in their QI submissions. Medication shortages continue to exist throughout the region and State.</p>	<p>Posting of All QI Plan Updates on theNCEMS Web Site with most recent revision date.</p>
--	--	--	---	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 2 Provide and/or promote QI educational opportunities to EMS system participants</p>	<p>Provide and/or promote training in QI principles, the development of QI indicators, and root cause analysis to NCEMS provider agencies</p>	<p>Regional EMS Coordinator or designee, as time allows. Updates at MAC – Humboldt-Del Norte County EMCC – Lake County</p>	<p>Periodic QI training/orientation for Provider and Hospital QI Liaisons</p> <p>QI orientation for Base Hospital PCNCs within 1 year of position assignment</p> <p>2020/2021 NCEMS summarized the overall QIP processes at MAC and Lake EMCC meetings.</p>	<p>Regional EMS Coordinator, Executive Director, Provider and Base Hospital QI verbal updates at meetings as needed. Regular written reports of the QIP Reports requires more staff time but can be requested.</p>

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 3 Promote the use of routine provider and hospital specific quality indicators</p>	<p>Verify that providers and hospitals include relevant quality indicators in their periodic QI Reports</p>	<p>Committee of Provider QI Coordinators and Hospital PCNCs for each county facilitated by Regional EMS Coordinator as needed and staff time allows.</p>	<p>Periodic or as needed QI Committee meeting to review current provider and hospital goals and associated quality indicators Have asked all provider and hospital QI liaisons to create a “quality indicator” using a standardized template developed for this purpose. 2017 Due to time and resource constraints, have not been able to provide QI training. In lieu of such training, have employed a strategy of pairing EMS provider agency QI representatives with their base hospital counterparts (PCNCs) in the development of provider specific data indicators. This program has proven effective where adopted. Will continue to encourage use of this “buddy system” to</p>	<p>Report to NCEMS Executive or Associate Director by NCEMS EMS Coordinator with updates to the MAC, Lake EMCC and Governing Board as needed.</p>

			<p>promote greater provider facility with the development of data indicators.</p> <p>2018 This project was initiated last year and will continue this year.</p> <p>2019 Due to priority being given to STROKE and other QI considerations, QI Focused Reviews have been directed towards these.</p> <p>2020/2021 Staff turnover has made developing training programs difficult. NCEMS provided QIP orientation at Mac and Lake EMCC meetings. NCEMS continues to review all cases STEMI and Critical Trauma and reviews selected cases in disclosure protected meetings.</p>	
--	--	--	---	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 4</p> <p><i>Improve the capabilities and efficiency of the Agency</i></p>	<p>Review or create</p> <p>Alternative models to enhance the processes to issue certifications and streamline Agency operations.</p>	<p>NCEMS</p> <p>Associate Director and Executive Assistant Regional EMS Coordinator</p>	<p>Implement feasible enhancements to the certification processes such as: eliminating the PCMD signature.</p> <p>2020/2021 online options were reviewed but are not needed at this time. Current certification/accreditation/FTO approval processes usually take 3-working days, the timeline can be speeded up if needed, and this timeline exceeds many other LEMSAs and the EMSA.</p> <p>Additional process efficiency mechanisms have been discussed and input solicited at MAC and Lake EMCC meetings.</p> <p>Policy updates are underway to drop the PCMD signature.</p>	<p>NCEMS Executive Director and Regional EMS Coordinator</p> <p>NCEMS Region Provider</p>

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 5 Enhance Policy Review processes</p>	<p>Established a Regional Policy Review Committee</p>	<p>Regional EMS Coordinator</p>	<p>Designation of a representative group of provider QI liaisons and hospital PCNCs for clinical policy review A group of interested PCNCs and provider liaisons was assembled. The NCEMS Clinical Policy Contractor was tasked with arranging in tele and or videoconference meetings with these individuals. 2017 Due to interruptions in contractor availability, the policy review committee did not meet in fiscal 2016-17, but as of July 2017, have been conducting internal to NCEMS policy review meetings with the contractor with a focus on re-initiating a policy review committee with regionwide participation. 2018 The North Coast EMS Policy Review Committee resumed</p>	<p>Regional policies, protocols and procedures sent to NCEMS Medical Director and Executive Director for final approval, including revised and new policies</p>

			<p>meetings last year. The Committee meets quarterly.</p> <p>2019 The North Coast EMS Policy Review Committee continues to meet regularly with participants from all 3 counties.</p> <p>2020/2021 Administrative policies and QI policies have been heavily reviewed by the agencies. Multiple policies were updated and finalized. Policy Review Committee meetings were put on hold due to the pandemic and staff turnover. Additional efficiencies are under review such as earlier clinical review by the Regional Medical Director and administrative review by the Executive Director</p>	
		<p>Regional EMS Coordinator</p> <p>Medical Director,</p> <p>Associate Director, Provider QI Liaisons and Hospital PCNCs</p>	<p>Periodic meetings to review clinical policy changes</p> <p>Two quarterly meetings held.</p> <p>Progress was interrupted when the home of the contractor was completely destroyed by fire.</p> <p>2017 See above note.</p> <p>2018 The North Coast EMS Policy Review Committee</p>	<p>DRAFT policies circulated via</p> <p>Informational Mailings and/or website.</p> <p>Finalized DRAFTs sent to NCEMS Medical Director and Executive Director for final approval and signature.</p> <p>Signed Policies issued via Informational Mailing and posted to NCEMS</p>

		<p>meetings last year. The Committee meets quarterly.</p> <p>2019 The North Coast EMS Policy Review Committee continues to meet regularly with participants from all 3 counties. Most meetings are conducted via Teleconference</p>	<p>web site. Considering eliminating signatures similar to other LEMSAs.</p>

			rather than video conference due to circumstances and participant preference. 2020/2021 Meetings have been limited to two annually via zoom, but numerous policies have been reviewed and updated with the staff of NCEMS and agencies.	
--	--	--	--	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 6 Continue to approve and monitor EMS educational offerings and increase NCEMS educational offerings as staff time and funding allow.</p>	<p>As staff time and funding allow, sponsor, or conduct EMS classes, seminars, panels, speakers or conferences that offer CEUs</p>	<p>NCEMS Associate Director, Regional EMS Coordinator, Executive Director, Medical Director</p>	<p>Periodic NCEMS sponsored educational opportunities conducted as staff time and funding allows. NCEMS currently approves numerous regional educational offerings .</p> <p>2019 Conducted the annual EMSC Conference where CE's were provided. Also provided Public Safety First Aid course in Lake and Humboldt County and CE hours were available if needed.</p> <p>2020/2021 Due the COVID pandemic educational offering were placed on hold. NCEMS continued to share other online seminars with all agencies with several very good programs provided excellent educational opportunities. The Regional Medical Director and Executive Director participated as</p>	<p>NCEMS Governing Board, NCEMS region provider agencies, posted on NCEMS Web Site</p>

			lecturers in the virtual EMSA Trauma Summit.	
--	--	--	--	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 7 Promote EMS initiatives to ensure EMS system access to the spectrum of all regional geographical and cultural communities.</p>	<p>Seek input from representatives of geographical and cultural communities as staff time and funding allow.</p>	<p>NCEMS Executive Director, Regional EMS Coordinator</p>	<p>Establishment and maintenance of a list of representatives of geographical and cultural communities willing to offer input in regard to EMS system access issues. NCEMS participated in an eight-year federal EMSC grant with UDCMC that reached out to numerous geographical and cultural groups. This effort was discontinued after the grant ended. Additional state funding and increased staff time is needed to continue this effort.</p>	<p>NCEMS Governing Board, NCEMSregion provider agencies, localEMS Committees, posted on NCEMS Web Site</p>
	<p>Identify and address the unmet needs of pediatric and medical fragile populations</p>	<p>NCEMS Associate Director, EDAP Contractor, Executive Director, Medical Director, EMS stakeholders.</p>	<p>NCEMS has a several decades long robust EMS for Children program, with a EMSA approved EMSC Plan, seven designated EDAPs, ongoing site surveys, and EDAP Trust Fund that has provided over \$240,000 in funding of pediatric beneficial equipment, supplies, training etc. to EDAPs. During the 8-year long EMSC grant with UDCMC, pediatric needs were assessed and many EMSC System enhancements were implemented. This effort was summarized in a recently published peer reviewed paper.</p>	<p>NCEMS Governing Board, NCEMSregion provider agencies, posted on NCEMS Web Site</p>

<p>Monitor national and state community paramedic initiatives for local compatibilities</p>	<p>NCEMS Regional EMS Coordinator, Executive Director, Medical Director</p> <p>MAC North – Del Norte County MAC – Humboldt County EMCC – Lake County</p>	<p>Periodic query for input/recommendation from North Coast EMS stakeholders NCEMS Associate Director met quarterly with statewide QI Coordinator group. Discussions included such initiatives. No formal query completed at this time due to limited staff time.</p> <p>2017 Have continued to monitor pilot projects. Have supported the development of a Lake County multidisciplinary initiative to reduce use of the 911 system</p>	<p>Continue to monitor state Community Paramedic draft regulations and report as needed to the regional EMS stakeholders, Governing Board. Pending outcome of the final regulatory process, reassess feasibility.</p>
---	--	--	---

			<p>through patient data sharing.</p> <p>2018 The Associate Director continues to monitor and support the Lake County "Wellness Roadmap" initiative.</p> <p>2019 The Lake County "Wellness Roadmap" has completed its deliverables.</p> <p>2020/2021 NCEMS has participated and comments on the current Community Paramedicine regulations currently in draft. At this time, these draft regulations seem unfeasible for this rural region.</p>	
--	--	--	--	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 8 Improve NCEMS, provider, and hospital prehospital and hospital database access</p>	<p>Create a management module for North Coast EMS</p>	<p>North Coast EMS Coordinator JayMyhre,</p>	<p>An intuitive PCR report/query module similar to the EPCIS management module that can be accessed by North Coast EMS staff</p> <p><i>This initiative was pursued under a grant, but thus far the cost of adopting data interface with the PCR program used locally has proven prohibitive. Requests for such a system continue to be made by NCEMS region EMS providers and hospitals.</i></p> <p>2017 Have received representatives of other PCR programs to initiate a</p>	<p>NCEMS Executive Director and Medical Director</p>

			<p>community wide discussion about adopting one or more alternative PCR systems that may better serve local needs and practices.</p> <p>2018 The cost of alternative PCR systems have proven prohibitive and NCEMS is exploring more cost-effective ways of performing data analysis using our current system and innovations suggested by Redwood MedNet</p> <p>2019 North Coast EMS has entered into a tentative agreement with some regional providers which will help to sustain NCEMS access to regional PCR data through ICEMA's ImageTrend. North Coast EMS continues to explore other options.</p> <p>2020/2021 North Coast EMS implemented a volume-based fee schedule with all agencies who transport patients within the NCEMS region. All but one agency has reimbursed</p>	
--	--	--	---	--

		<p>NCEMS for the cost of accessing our current data platform. NCEMS for years has utilizes the contract services of Jay Myhre to develop canned state required other EMS System reports and is usually immediately available by request to make new data queries. Our Regional EMS Coordinator is also continuing to learn how to access PCR data as well. We also have direct contractor access to the State Trauma Registry and can match field and hospital data. We participate in the CARES program and collect and review STEMI Center outcome data as well.</p>	
<p>Create a management module for Providers and Hospitals</p>	<p>North Coast EMS</p> <p>Associate Director, Jay Myhre, MAC North – Del Norte County</p>	<p>An intuitive PCR report/query</p> <p>module similar to the EPCIS management module that can be accessed by NCEMS PCNCs</p>	<p>NCEMS Executive Director and Medical Director</p>

		<p>MAC – Humboldt County EMCC – Lake County</p>	<p>and Provider QI Liaisons Cost of such a system continues to be prohibitive. 2017 After initial discussions with representatives of other PCR systems, have identified other, potentially affordable alternatives to our current PCR system. Further discussions anticipated for the beginning of 2018. 2018 The cost of alternative PCR systems has proven prohibitive and NCEMS is exploring more cost-effective ways of performing data analysis using our current system and innovations suggested by Redwood MedNet 2020/2021 All agencies have the option to utilize other PCR programs and those programs are compatible with the current data platform that NCEMS utilizes. NCEMS IT contractor and the Regional EMS Coordinator have worked together to more efficiently</p>	
--	--	---	--	--

			and effectively run audit reports and data queries.	
--	--	--	---	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 9 Identify and address potential patient care record security and confidentiality threats</p>	<p>Confer with IFT on security and confidentiality issues</p>	<p>NCEMS Executive Director, Regional EMS Coordinator</p>	<p>A synopsis of LEMSA PCR security and confidentiality best practices or EMSAAC recommendation Awaiting further EMSAAC action to address with issue. 2017 No change. 2018 No change. 2019 No Change. 2020/2021 North Coast EMS has increased server security with our IT contractor, utilizes encryption emails for patient confidential QI review, and utilizes Evidence Code Section 1157.7 to disclosure protection QI related meetings. We also have increased reference to 1157.7 in our QIP correspondence.</p>	<p>NCEMS Governing Board if needed.</p>

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 10 Ensure ready access to regional EMS information for EMS system participants</p>	<p>Issue periodic Informational Mailings, and/or convene Policy Review Committee meetings, utilize the website, and assess other ways to ensure information access.</p>	<p>NCEMS Executive Assistant Regional EMS Coordinator</p>	<p>An Informational Mailing issued quarterly</p>	<p>Executive Director</p>
	<p>Include an explanatory synopsis of all included policy changes in each Informational Mailing</p>	<p>NCEMS Regional EMS Coordinator , Executive Assistant</p>	<p>A current policy change synopsis included with each Informational Mailing 2017 Anticipated beginning in 2018 with future policy changes after review by the policy review committee. 2019 A policy change synopsis was provided to system participants after the Fall Policy Review Committee meeting. 2020/2021 Policy change synopsis is still provided to the system but is not effect in</p>	<p>Executive Director</p>

		reaching the prehospital personnel. NCEMS is reviewing adding a "Change Policy" that will be accessible on the website as well as the mobile site.	
Update the North Coast EMS website within one month of issuing an Informational Mailing	NCEMS Administrative Assistant, Associate Director, Web Site Contractor	NCEMS website updated within one month of issuing an Informational Mailing 2017 Anticipated beginning in 2018 with future policy changes after review by the	NCEMS Governing Board, NCEMS region provider agencies, regional base hospitals, posted on NCEMS Web Site

			<p>policy review committee. 2019 This goal has been achieved. 2020/2021 Currently any policy that is finalized by the Medical Director and Executive Director is signed and posted to the website within 24 to 48 hours of final approval.</p>	
	<p>Publish the policy change explanatory synopsis on the North Coast EMS website within one month of issuing policy changes</p>	<p>NCEMS Administrative Assistant, Clinical Policy Revision Contractor,</p>	<p>Current policy change synopses published on the NCEMS website within one month of issuing an Informational Mailing 2017 Anticipated beginning in 2018 with future policy changes after review by the policy review committee. 2019 We anticipate this goal will be achieved in 2020.</p>	<p>NCEMS Governing Board, NCEMS region provider agencies, regional base hospitals, posted on NCEMS Web Site</p>

<p>Update the web site Table of Contents and Policy Index within one month of issuing an Informational Mailing</p>	<p>NCEMS Administrative Assistant, Associate Director, Web Site Contractor</p>	<p>Updated website Table of Contents and Policy Index within one month of issuing an Informational Mailing 2017 Anticipated beginning in 2018 with future policy changes after review by the policy review committee.</p>	<p>Executive Director</p>
--	---	---	---------------------------

			2019 This goal has been achieved. 2020/2021 When final policies are posted to the website all providers, PCNCs and PCMDs are notified via email that same day.	
	Ensure that all regional EMS related meetings are posted on the North Coast EMS Calendar	NCEMS Administrative Assistant, Associate Director, Web Site Contractor	All regional EMS related meetings posted on the online NCEMS EMS Calendar 2017 not yet attempted due to the prioritization of the policy review committee. 2019 This goal has been Achieved 2020/2021 This goal is being met.	NCEMS Governing Board, NCEMS region provider agencies, regional base hospitals, posted on NCEMS Web Site
	Routinely verify that the policy manual and web site are synchronized	NCEMS Administrative Assistant, Associate Director, Program Manager, Web Site Contractor	Annual review to verify that policy manual and website are synchronized. 2017 Need to return to this objective in 2018. 2019 This goal has been achieved 2020/2021 This goal is currently being maintained.	NCEMS Executive Director, Associate Director, Regional EMS Coordinator, Administrative secretary

Routinely post North Coast EMS regional Core Data Indicator results on North Coast EMS website	NCEMS Regional EMS Coordinator	Annual update of NCEMS regional Core Data Indicators posted to NCEMS website Not initiated due to staff change at NCEMS (new Administrative Assistant) 2017 Not accomplished due to need to questions	Executive Director
--	---------------------------------------	---	--------------------

			<p>regarding the reliability of these results after a region wide focused review indicated that results may not reflect actual field practice. Compilation of core indicators complicated by transitions between NEMSIS versions.</p> <p>2018 As yet NCEMS has not been able to send this year's core measures results to EMSA due to concerns regarding data validity.</p> <p>2019 While there has been continuing improvement to the Core Indicators in past years, we have determined that we should wait to post any data until we can post results that more accurately communicate the quality of care being provided by our region's EMS providers.</p> <p>2020/2021 Core Data indicators are regularly reviewed and verified by the EMS Regional Coordinator</p>	
--	--	--	--	--

			<p>and results being emailed to all listed parties. Elements of the Core data provided by the state have been run at the LEMSA level identifying agencies and paramedics with those results sent back to the agencies for review. That information is not currently available on the website, but is available by request.</p>	
--	--	--	--	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 11 Adopt forthcoming EMS for Children state regulations when available to ensure hospital and provider compliance with national and state EMS for Children standards</p>	<p>Continue Emergency Dept Approved for Pediatric (EDAP) designations and transition to new state standards when available.</p>	<p>NCEMS Emergency Department Approved for Pediatrics Nurse Coordinator, Executive Director, Medical Director, Associate Director, Program Manager,</p>	<p>Verification that NCEMS required equipment includes EMSC standards, verify that ED physician and nursing staff receive pediatric CEUs, and designated EDAPs have a pediatric QI program. 2018 No change. EDAP site visits for continuing compliance conducted at St. Joseph Hospital and Redwood Memorial Hospital, completed June 2018 2019 EDAP site visits scheduled for Sutter Lakeside, Adventist Clearlake, Jerold Phelps, Mad River Community, and Sutter Coast Hospitals in March 2020. All hospitals were provided with pre-survey documentation tools for the scheduled site visit. 2020/2021 Five of seven EDAP site</p>	<p>NCEMS Governing Board, Executive and Medical Directors, NCEMS region provider agencies, regional EDAPS,</p>

			visits were completed in 2021 with finalize reviews completed in 2022. All hospitals met or exceeded the requirements to continue as EDAPs. The other two EDAPs will be surveyed next year. Five of the seven EDAPs completed the National Pediatric Readiness Surveys, and all have higher than average scores.	
--	--	--	--	--

	<p>Hospital PCNCs regularly provide pediatric specific Field Care Audits in coordination with assigned PdLNs.</p>	<p>NCEMS Emergency Department Approved for Pediatrics Nurse Coordinator, Program Manager, Executive Director, Associate Director</p>	<p>All North Coast EMS PCNCs provide at least one pediatric specific FCA annually No change 2019 No change and will be verified at EDAP site survey visits. 2020/2021 EDAP site surveys were completed in 2021 with all requirements met.</p>	<p>NCEMS Governing Board, NCEMS region provider agencies, regional EDAPs and base hospitals, posted on NCEMS Web Site</p>
--	---	---	---	---

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 12 Rationalize the care and transport of mental health emergency medical patients.</p>	<p>Identify EMS field and ED challenges in the assessment, treatment and transport of mental health patients</p>	<p>5150 Behavioral Health Specialist (contractor), NCEMS Executive Director, Medical Director, Regional EMS Coordinator</p>	<p>Develop and submit annual survey to EMS stakeholders to determine the needs confronting prehospital care providers and hospital EDs in the assessment, transport and treatment of 5150 patients</p> <p>2017 Continue Meeting monthly with the Medical Society, Mental Health & local hospitals to address issues as they arise. Meeting monthly with the nurse managers from local ER's, clinics. Law enforcement and mental Health Developing information on the 72 hour clock laws. Assessing the impact of minors in psychiatric crisis on the adult psych setting and the effect on ER's</p> <p>2018 Continue Meeting monthly with the Medical Society, Mental Health & local hospitals to</p>	<p>NCEMS Governing Board, Executive Director, NCEMS region provider agencies, regional base hospitals, posted on NCEMS Web Site</p>

			<p>address issues as they arise. Meeting quarterly with the nurse managers from local ER's, clinics. Law enforcement and mental Health Participating in the Medical Society's "small group" to develop collaborative pilot programs regarding when the 72 hour clock starts, HSC 1799.111, ER MD designation criteria for eligibility to rescind 5150 holds and develop a collaborative pilot protocol for minors to be seen at ER by mental health mobile response teams to address the impact of minors in psychiatric crisis on the adult psych setting and the effect on ER's</p> <p>2019 Continue to meet monthly with the Medical Society, Behavioral Health & local hospitals to address issues as they arise. Chair & meet quarterly with the nurse managers from local ER's, clinics. Law</p>	
--	--	--	---	--

			<p>enforcement and Behavioral Health. Participating in the Medical Society's "small group" continued development of collaborative policy/programs defining when the 72 hour clock starts, training programs on HSC 1799.111, ER MD 5150 writing designation certification training as well as, collaborative pilot protocol for minors to be seen at ED by behavioral health mobile response teams to address the impact of minors in psychiatric crisis on the adult psych setting and the effect on ED 2021/2022 NCEMS with leadership our contractor continues to be actively involved with local, regional, and statewide Behavioral Health/EMS collaborations, has conducted regular meetings, many COVID related, developed and maintained a 5150 Handbook,</p>	
--	--	--	---	--

			worked to increase efficiencies and cooperation to help offload 5150 patients from the crowded EDs with few available beds statewide and transportation challenges.	
	Update as needed reference materials regarding the clinical and legal framework for assessment, treatment and transport of mental health patients	5150 Specialist, NCEMS Executive Director, Medical Director,	Update reference materials designed to support EMS and ED personnel in the assessment, transport and treatment of 5150 patients 2017 Continue to Update NCEMS 5150 web guide annually & as needed. Created a standardized	NCEMS Governing Board, Executive Director, Public and Behavioral Health, NCEMS region provider agencies, regional base hospitals, posted on NCEMS Web Site

			<p>Medical Clearance form for admittance to designated psych facility document. Piloted for 3 months with success. Now in review for revisions. Plan to assist Detox & Jail with creating medical clearance forms for their facilities.</p> <p>Assisting ER's with information on tele-psychiatrist's ability to treat & process to enable them to lift 5150 holds if the person can be properly served without being detained.</p> <p>2018 Continue to Update NCEMS 5150 web guide annually & as needed.</p> <p>Medical Clearance form for admittance to designated psych facility document successfully piloted, now in full effect. Jail medical clearance completed.</p> <p>Assisting ER's with information and being the bridge of collaboration between MH, ER, EMS & Law enforcement</p>	
--	--	--	---	--

			<p>regarding WIC 5150 HOLDS</p> <p>2019 Continue to Update NCEMS 5150 web guide annually & as needed. Meet bi-weekly with Behavioral Health Admin. Update bi-annually & prn, the Medical Clearance form for admittance to designated psych facility document successfully being utilized. Assisting ED's with information and facilitating the bridge of collaboration between Behavioral Health, ED, EMS & Law enforcement regarding WIC 5150 HOLDS. Attend Humboldt Overdose Prevention meetings.</p> <p>2021-22 See above</p>	
	Promote education for the EMS community regarding the optimal assessment, treatment and transport of 5150 patients	<p>5150 Specialist, NCEMS Executive Director, Medical Director, Associate Director</p>	<p>Promote training opportunities for EMS responders in Del Norte/Humboldt County and Lake County</p> <p>2017 Created 5150 training videos for each of the 3 counties to be accessible any time. Held Field Care Audit trainings on</p>	<p>NCEMS Governing Board, Executive Director, Public and Behavioral Health, NCEMS region provider agencies, regional base hospitals, posted on NCEMS Web Site</p>

			<p>medical clearance, and medical detox & 5150 Holds. Educate staff at monthly Medical Advisory Committee meetings, as well as field emails, & questions as they come in. Have trainings scheduled for 2018. Plan to update videos yearly.</p> <p>2018 Created training videos and links to the 5150 web guide following annual update. Created videos for each of the 3 counties to be accessible any time. Held Field Care Audit trainings on medical clearance, and medical detox & 5150 Holds. Educate staff at monthly Medical Advisory Committee and Medical Society meetings, as well as field emails, & questions as they come in. Plan to update videos yearly.</p> <p>2019 Continue creating & updating of training videos as well as, links to the 5150</p>	
--	--	--	--	--

			<p>web guide following annual update. Create videos for each of the 3 counties to be accessible any time with multiple devices via a new collaborative platform (ispring) linking tests results directly to Behavioral health dept in each individual county. Educate staff at monthly Medical Advisory Committee and Medical Society meetings, as well as Nurse managers & behavioral Health meetings, field emails, & questions as they come in. Plan to update videos yearly.</p> <p>2021-22: See above.</p>	
--	--	--	---	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 13</p> <p>Participation in assessment and identification of collaborative opportunities to address and resolve IFT delays</p>	<p>Participate in discussions, meetings to assess and reduce IFT delays, particularly of urgent transfers.</p>	<p>NCEMS Executive Director</p> <p>Regional EMS Coordinator,</p> <p>Medical Director</p>	<p>NCEMS continue to participate in Lake County Priority 1 and IFT meetings. Medical Director is now a call list option to assist with difficult transfer decisions in Lake County. NCEMS promoted revision of the Lake County Ambulance Ordinance to include consideration of IFT unit criteria. NCEMS coordinates or participates in the review of disclosure protected cases involving IFTs during TAC and other meetings. Rural IFTs delays are an increasing problem in the State, particularly due to the pandemic,</p> <p>Emergency IFT reporting requirements incorporated into EMS Provider and Agreements and Base Hospital Contracts</p> <p>No action taken pending Humboldt</p>	<p>NCEMS</p> <p>Governing Board, Public Health, NCEMS Region Provider Agencies Regional Base Hospitals</p>

			<p>County EOA implementation.</p> <p>2107 North Coast EMS has contracted with a EOA Oversight Officer and is developing contracts for the EOA providers.</p> <p>2018 This project was interrupted due to the contractor moving out of the area unexpectedly.</p> <p>2019 Lake County stakeholders undertook to establish universally understood data points to better evaluate system IFT performance. This project is ongoing. See above.</p>	

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 14 Monitoring of key specialty care metrics - TRAUMA</p>	<p>Implement program and process for verification of trauma registry data entry</p>	<p>NCEMS Regional Trauma Nurse Contractor, Executive Director, Medical Director</p>	<p>A process for verification of trauma center registry data entry 2017 completed trauma registry data submission from each trauma center to NCEMS and the State Trauma Registry for first quarter in 2018. This requires continued coordination with Lancet Technologies and Digital Innovations, the vendors used by the trauma hospitals for their registries. 2018 No change in the status of this objective. Fully reviewing all submissions remains a challenge due to interface issues with the state trauma registry and limited available staff time. 2019 No change in matrix expectation. The NCEMS Regional Trauma Nurse Contractor has access to all four trauma center's data (Sutter Coast, Mad River Community, St Joseph, and Sutter Lakeside Hospitals) as well as the CA EMSA trauma data bank. Challenges still exist with continuity of data entered into the local hospital registries and export of that data to the State; however, there is ongoing improvement and focus in this area. Time is still very limited for the review of the data by the NCEMS Regional</p>	<p>Executive Director</p>

			<p>Trauma Nurse Contractor.</p> <p>2020/2021 No change in matrix expectation. The NCEMS Regional Trauma Nurse Contractor has access to all four trauma center's data as well as the CA EMSA (CEMSIS) trauma data bank. Access and export issues have resolved for all four trauma centers. Nurse Contractor's hours are insufficient to routinely review the data. See Trauma Plan Update</p>	
	<p>Improve suitability and compliance with North Coast EMS policies specific to designated Trauma Center activities.</p>	<p>NCEMS</p> <p>Regional Trauma Nurse Contractor, Executive Director, Medical Director</p>	<p>To be determined in 2016.</p> <p>2017 completed update of policy #7000 - Triage Determination and Transport Destination Policy, specific to each trauma center.</p> <p>Additional policies, #7001-7006 to be reviewed and updated in 2018, with coordination from TAC team members.</p> <p>2018 No change in the status of this objective. Policies 7001-7006 will need to be updated in 2019.</p> <p>2019 No change in matrix expectation. Policy 7000 was twice updated to reflect national standards and current practice in the NCEMS region. Policies 7001 – 7006 will need further review and specifically, 7001 and 7005 will need to be updated in 2020.</p> <p>2020/2021 No change in matrix expectation. Policy 7000 was again reviewed and updated to reflect updates in the NCEMS</p>	<p>Governing Board as needed.</p>

			<p>Trauma System, specifically the change of Mad River Community Hospital reducing its designation status to a basic Level IV Trauma Center, thereby requiring a change of destination for the most critical trauma patients to go directly to the higher-level Trauma Center at Providence St Joseph Hospital – Eureka, a Level III designated Trauma Center with full-time Orthopedics and near full-time Neurosurgical coverage.</p> <p>A new policy for rapid Re-triage was established and tracking and trending of events that fit the direction of that policy are ongoing. Plan for the current additional trauma policies to be consolidated in 2022 due to redundancy.</p> <p>See Trauma Plan Update</p>	
Improve oversight and assurance of internal performance improvement requirements of designated Trauma Centers	<p>NCEMS Trauma Contractor, Executive Director, Medical Director</p>	<p>To be determined in 2016.</p> <p>2017 Currently trending patient demographics, ISS, injury type and patient outcomes/dispositions. Continue in 2018 to work with trauma center representatives and TAC team members to establish and enhance QI and case review processes. Will conduct</p>	<p>NCEMS Governing as needed</p>	

			<p>quarterly data review and sharing with TPMs to increase familiarity with report development and facilitate accuracy of data.</p> <p>2018 No change in the status of this objective. This continues to be a challenge due to technical issues with Lancet Trauma Registry and lack of access to Digital Innovations Trauma Registry. Pending JPA resolution of annual fees to fund Trauma Nurse Contractor time is necessary to coordinate quarterly data review/TAC meetings and evaluate the data.</p> <p>2019 No change in matrix expectation. The Humboldt-Del Norte County TAC meetings were held quarterly in February, May, August, and November. No TAC meetings were convened in Lake County due to time constraints and multiple personnel turnovers at Sutter Lakeside Hospital. Quarterly data review is being completed by the NCEMS Regional Trauma Nurse Contractor and shared with the JPA, as well as with the individual trauma centers. Sutter Lakeside has an antiquated trauma registry program and is working towards updating that program in order to collect and report out meaningful</p>	
--	--	--	---	--

			<p>data. Key standards being evaluated each quarter are:</p> <ol style="list-style-type: none"> 1. Time of patient's hospital arrival to data entry in the hospital registry, with a goal of 80% of charts entered within 60 days. 2. Export of local hospital trauma data to the CA EMSA trauma registry (CEMSIS), with a goal of quarterly submission, exporting data from the previous quarter. 3. Accuracy of entering trauma patient data into the local hospital trauma registry, using the NTDS algorithm as a standardized tool, in order to collect true and similar data between the Trauma Centers. <p>2020/2021 No change in matrix expectation. The Humboldt-Del Norte County and Lake TAC meetings were held quarterly. Sutter Lakeside Hospital has updated their Trauma registry to reflect the same data collection points as Sutter Coast Hospital and is now able to review data and plan appropriate PI interventions. The key standards from 2019 are still being reported out at quarterly TAC meetings by Trauma Centers in all three counties.</p> <p>See Trauma Plan Update</p>	
Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
Goal 15 Monitoring	Improve NCEMS access to STEMI	NCEMS STEMI	The identification of a set of	NCEMS

<p>of key specialty care metrics - STEMI</p>	<p>data within the ImageTrend database</p>	<p>Contractor, Executive Director, Medical Director,</p>	<p>ImageTrend/NEMSIS data elements relevant to STEMI</p> <p>2017 Due to staff constraints and challenges with ImageTrend, unable to utilize ImageTrend at this time.</p> <p>2017 2019 We continue to work with the challenges presented by staff constraints and ImageTrend.</p> <p>2020/2021 STEMI contractor, Regional EMS Coordinator and the STEMI receiving center have developed a system to facilitate prehospital information to the STEMI team in real time. Image Trend was able to provide a work sheet to the STEMI contractor to assist her in working with the CARES program.</p>	<p>Governing Board as needed</p>
--	--	---	---	----------------------------------

	<p>Refine and expand the STEMI indicators used by NCEMS to assess STEMI care at designated STEMI Receiving Centers</p> <ul style="list-style-type: none"> • Time of first medical contact to ECG • Advance hospital notification for suspected STEMI • Scene time for suspected STEMI • Transport of suspected STEMI to PCI hospital 	<p>NCEMS STEMI Contractor, Executive Director, Medical Director, Associate Director</p>	<p>A set of STEMI Indicators to be generated at least quarterly 2017 STEMI Receiving Center collects data on all key STEMI indicators 2019 STEMI Receiving Center collects data on all key STEMI indicators 2020/2021 STEMI receiving center continues to collect data on all key STEMI indicators. 2021/22: Convened periodic STEMI/Stroke meetings in Humboldt/Del Norte (with case and data review) and reported in Lake. See STEMI Plan Update.</p>	<p>NCEMS Governing Board as needed.</p>
	<p>Track provider compliance with STEMI reporting requirements</p>	<p>NCEMS STEMI Contractor, Executive Director, Medical Director, Associate Director</p>	<p>A tracking system, with compliance metrics for NCEMS region transport agencies 2019 STEMI Receiving Center submits required STEMI data to NCEMS for review on a quarterly basis. In addition, NCEMS reviews the minutes of STEMI Receiving Center in-house STEMI review committee. 2020/2021 STEMI</p>	<p>NCEMS Governing Board as needed.</p>

			receiving Center continues to submit data to NCEMS for review on a quarterly basis. See above and STEMI Plan Update.	
--	--	--	--	--

Goal	Objectives (Activities)	Topic QI Review Committee	Metric	Reporting method/target audience
<p>Goal 16 Monitoring of key specialty care metrics - STROKE</p>	<p>Develop stroke system knowledge and awareness</p>	<p>NCEMS Executive Director, Medical Director, QI Coordinator</p>	<p>Evaluation of Stoke education opportunities for NCEMS EMS personnel. (Using NCEMS Quarterly Focused Review) 2017 No progress made on this goal due to competing priorities. 2018 No progress made on this goal due to competing priorities. 2019 – preliminary assessment of hospital stroke capabilities completed. 2020/2021 The forward movement for development of a Stroke receiving has been limited due to the ongoing pandemic. If additional state funding is secured and additional staff are hired, assess development of a formal Stroke System.</p>	<p>NCEMS Governing Board, NCEMS region provider agencies, regional base hospitals.</p>

Statewide Core Indicators

North Coast EMS actively supports the California EMS Authority's data standardization efforts, and the establishment of measurable standardized indicators of quality EMS systems and patient care. North Coast EMS believes that the development of standards should be process driven. Successful standardized indicators will emerge from a process that prioritizes the full participation of all those agencies, institutions and individuals who must ultimately persuade other individual system participants of the value of the standardization goal. Meaningful, comparable system and patient care measures will be achieved most readily when those engaged in the activities being measured understand and appreciate the value of their participation. Meaningful indicators require a development process that anticipates ongoing adjustments as well as the refinement of the tools, such as uniform terminology and data sheets that conform to the data elements and values of a single standard (i.e. CEMSIS). Agencies, institutions and individuals will support a standardization process that they feel accommodates their priorities and respects their experience and the investment of their time and effort.

North Coast EMS continues to support state data collection initiatives and associated regulations. North Coast EMS notes that State core indicator conformance to the fields and values in the State required version of CEMSIS continues to improve.